

Access DB#

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: NILMAN S BASI Examiner #: 74538 Date: 9/19/02  
 Art Unit: 1648 Phone Number 30 89435 Serial Number: 09/729920  
 Mail Box and Bldg/Room Location: CM 10617 Results Format Preferred (circle): PAPER DISK E-MAIL  
Mail rm 10019

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Isolated Human Tam forle Protein, Mula and  
 Inventors (please provide full names): Karl Guegle et al

Earliest Priority Filing Date: 9/19/2000

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Noon search  
SEQ ID NO: 1, 2, 3 (143,306) Seq 3 cancelled too large

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CH/CHEN (STIC)

Commercial + interfere databases + issued

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## STAFF USE ONLY

Searcher:	Type of Search	Vendors and cost where applicable
<u>D. Schreiber</u>	NA Sequence (#) <u>1</u>	STN
Searcher Phone #: <u>308-4292</u>	AA Sequence (#) <u>1</u>	Dialog
Searcher Location: <u>CM 16A03</u>	Structure (#)	Questel/Orbit
Date Searcher Picked Up: <u>9/20</u>	Bibliographic	Dr. Link
Date Completed: <u>9/23</u>	Litigation	Lexis/Nexis
Searcher Prep & Review Time: <u>15</u>	Fulltext	Sequence Systems <u>CompuGen</u>
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time: <u>6</u>	Other	Other (specify)

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FILE 'MEDLINE' ENTERED  
FILE 'JAPIO' ENTERED  
FILE 'BIOSIS'  
FILE 'SCISEARCH'  
FILE 'WPIDS'  
FILE 'CAPLUS'  
FILE 'EMBASE'  
=> potassium channel and trek  
L1 217 POTASSIUM CHANNEL AND TREK

=> dup rem l1  
PROCESSING COMPLETED FOR L1  
L2 73 DUP REM L1 (144 DUPLICATES REMOVED)

=> d ibib l2 1-73

L2 ANSWER 1 OF 73 MEDLINE  
ACCESSION NUMBER: 2002165854 MEDLINE  
DOCUMENT NUMBER: 21896085 PubMed ID: 11897836  
TITLE: The \*\*\*TREK\*\*\* two P domain K+ channels.  
COMMENT: Comment on: J Physiol. 2002 Mar 15;539(Pt 3):657-68  
AUTHOR: Patel Amanda; Honore Eric  
CORPORATE SOURCE: IPMC-CNRS, 660 Route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF PHYSIOLOGY, (2002 Mar 15) 539 (Pt 3) 647.  
Journal code: 0266262. ISSN: 0022-3751.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Commentary  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200206  
ENTRY DATE: Entered STN: 20020319  
Last Updated on STN: 20020621  
Entered Medline: 20020620

L2 ANSWER 2 OF 73 MEDLINE DUPLICATE 1  
ACCESSION NUMBER: 2002266838 MEDLINE  
DOCUMENT NUMBER: 22001365 PubMed ID: 11886861  
TITLE: Modulation of TASK-1 (Kcnk3) and TASK-3 (Kcnk9) \*\*potassium\*\*\* \*\*channels\*\*\* : volatile anesthetics and neurotransmitters share a molecular site of action.  
AUTHOR: Talley Edmund M; Bayliss Douglas A  
CORPORATE SOURCE: Department of Pharmacology, University of Virginia, Charlottesville, Virginia 22908-0735, USA.. emt3m@virginia.edu  
CONTRACT NUMBER: NS33583 (NINDS)  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2002 May 17) 277 (20) 17733-42.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF031384; GENBANK-AF391084  
ENTRY MONTH: 200207  
ENTRY DATE: Entered STN: 20020514  
Last Updated on STN: 20020717  
Entered Medline: 20020716

L2 ANSWER 3 OF 73 MEDLINE DUPLICATE 2  
ACCESSION NUMBER: 2002322564 MEDLINE  
DOCUMENT NUMBER: 22060496 PubMed ID: 12065410  
TITLE: An intracellular proton sensor commands lipid- and mechano-gating of the K(+) channel \*\*\*TREK\*\*\* -1.  
AUTHOR: Honore Eric; Maingret Francois; Lazdunski Michel; Patel Amanda Jane  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS-UMR 6097, 660 route des Lucioles, Sophia Antipolis, F-06560 Valbonne, France.  
SOURCE: EMBO JOURNAL, (2002 Jun 17) 21 (12) 2968-76.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200208  
ENTRY DATE: Entered STN: 20020615  
Last Updated on STN: 20020830  
Entered Medline: 20020829

L2 ANSWER 4 OF 73 MEDLINE DUPLICATE 3  
ACCESSION NUMBER: 2002238785 MEDLINE  
DOCUMENT NUMBER: 21972941 PubMed ID: 11976378  
TITLE: Long-term alteration of S-type potassium current and passive membrane properties in aplysia sensory neurons following axotomy.  
AUTHOR: Ungless Mark A; Gasull Xavier; Walters Edgar T  
CORPORATE SOURCE: Department of Integrative Biology and Pharmacology, University of Texas-Houston Medical School, Houston, Texas 77030, USA.  
CONTRACT NUMBER: NS-35882 (NINDS)  
NS-35979 (NINDS)  
RR-10294 (NCRR)

SOURCE: JOURNAL OF NEUROPHYSIOLOGY, (2002 May) 87 (5) 2408-20.  
Journal code: 0375404. ISSN: 0022-3077.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences  
ENTRY MONTH: 200206  
ENTRY DATE: Entered STN: 20020429  
Last Updated on STN: 20020824  
Entered Medline: 20020628

L2 ANSWER 5 OF 73 MEDLINE DUPLICATE 4  
ACCESSION NUMBER: 2002191200 MEDLINE  
DOCUMENT NUMBER: 21896087 PubMed ID: 11897838  
TITLE: Expression pattern and functional characteristics of two novel splice variants of the two-pore-domain \*\*\*potassium\*\*\* \*\*channel\*\*\* \*\*TREK\*\*\* -2.  
COMMENT: Comment in: J Physiol. 2002 Mar 15;539(Pt 3):647  
AUTHOR: Gu Wenli; Schlichthorl Gunter; Hirsch Jochen R; Engels Hartmut; Karschin Christine; Karschin Andreas; Derst Christian; Steinlein Ortrud K; Daut Jurgen  
CORPORATE SOURCE: Institut fuer Humangenetik, Universitat Bonn, Wilhelmstrasse 31, D-53111 Bonn, Germany.  
SOURCE: JOURNAL OF PHYSIOLOGY, (2002 Mar 15) 539 (Pt 3) 657-68.  
Journal code: 0266262. ISSN: 0022-3751.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200206  
ENTRY DATE: Entered STN: 20020403  
Last Updated on STN: 20020621  
Entered Medline: 20020620

L2 ANSWER 6 OF 73 CAPLUS COPYRIGHT 2002 ACS  
DUPLICATE 5  
ACCESSION NUMBER: 2002322996 CAPLUS  
DOCUMENT NUMBER: 13743030  
TITLE: The \*\*\*TREK\*\*\* two P domain K+ channels  
AUTHOR(S): Patel, Amanda; Honore, Eric  
CORPORATE SOURCE: IPMC-CNRS, Valbonne, 06560, Fr.  
SOURCE: Journal of Physiology (Cambridge, United Kingdom) (2002), 539(3), 647  
CODEN: JPHYA7; ISSN: 0022-3751  
PUBLISHER: Cambridge University Press  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English  
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES  
AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 7 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:365502 BIOSIS  
DOCUMENT NUMBER: PREV200200365502  
TITLE: Several tandem-pore K+ channels contribute to background K+ current in cerebellar granule neurons.  
AUTHOR(S): Han, Jaehae (1); Truell, Jeffrey (1); Gnatenco, Carmen (1); Kim, Donghee (1)  
CORPORATE SOURCE: (1) Chicago Medical School, Chicago USA  
SOURCE: Biophysical Journal, (January, 2002) Vol. 82, No. 1 Part 2, pp. 636a. <http://intl.biophysj.org/>. print.  
Meeting Info.: 46th Annual Meeting of the Biophysical Society San Francisco, California, USA February 23-27, 2002 ISSN: 0006-3495.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 8 OF 73 MEDLINE DUPLICATE 6  
ACCESSION NUMBER: 2002376647 IN-PROCESS  
DOCUMENT NUMBER: 22117977 PubMed ID: 12122143  
TITLE: Characterization of four types of background \*\*\*potassium\*\*\* \*\*channels\*\*\* in rat cerebellar granule neurons.  
AUTHOR: Han Jaehae; Truell Jeffrey; Gnatenco Carmen; Kim Donghee  
CORPORATE SOURCE: Department of Physiology, Gyeongsang National University School of Medicine, Chinju, Korea.  
SOURCE: JOURNAL OF PHYSIOLOGY, (2002 Jul 15) 542 (Pt 2) 431-44.  
Journal code: 0266262. ISSN: 0022-3751.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals  
ENTRY DATE: Entered STN: 20020718  
Last Updated on STN: 20020718

L2 ANSWER 9 OF 73 MEDLINE  
ACCESSION NUMBER: 2002309957 MEDLINE  
DOCUMENT NUMBER: 22047240 PubMed ID: 12051718  
TITLE: Validation of a quantitative method for real time PCR kinetics.  
AUTHOR: Liu Weihong; Saint David A  
CORPORATE SOURCE: Department of Physiology, University of

Adelaide, Adelaide, SA 5005, Australia.  
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2002 Jun 7) 294 (2) 347-53.  
Journal code: 0372516. ISSN: 0006-291X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (VALIDATION STUDIES)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200207  
ENTRY DATE: Entered STN: 20020611  
Last Updated on STN: 20020717  
Entered Medline: 20020716

L2 ANSWER 10 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:363310 BIOSIS  
DOCUMENT NUMBER: PREV200200363310  
TITLE: Expression pattern and functional characteristics of two novel splice variants of the two-pore-domain \*\*\*potassium\*\*\* \*\*channel\*\*\* \*\*TREK\*\*\* -2.  
AUTHOR(S): Gu, W. (1); Schlichthorl, G. (1); Hirsch, J. R. (1); Engels, H. (1); Karschin, C. (1); Karschin, A. (1); Derst, C. (1); Daut, J. (1)  
CORPORATE SOURCE: (1) Institut fuer Normale und Pathologische Physiologie, Universitaet Marburg, Deutschhausstrasse 2, 35037, Marburg Germany  
SOURCE: Pfluegers Archiv European Journal of Physiology, (March, 2002) Vol. 443, No. Supplement 1, pp. S341. <http://link.springer.de/link/service/journals/00424/print>.  
Meeting Info.: 81st Annual Joint Meeting of the Physiological Society, the Scandinavian Physiological Society and the German Physiological Society Tuebingen, Germany March 15-19, 2002 ISSN: 0031-6768.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 11 OF 73 MEDLINE DUPLICATE 7  
ACCESSION NUMBER: 2002174336 MEDLINE  
DOCUMENT NUMBER: 21903759 PubMed ID: 11906167  
TITLE: Molecular basis of the voltage-dependent gating of \*\*\*TREK\*\*\* -1, a mechano-sensitive K(+) channel.  
AUTHOR: Maingret Francois; Honore Eric; Lazdunski Michel; Patel Amanda Jane  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS, UMR 6097, Sophia Antipolis, Valbonne, France.  
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2002 Mar 29) 292 (2) 339-46.  
Journal code: 0372516. ISSN: 0006-291X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200205  
ENTRY DATE: Entered STN: 20020322  
Last Updated on STN: 20020507  
Entered Medline: 20020506

L2 ANSWER 12 OF 73 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 2002372279 EMBASE  
TITLE: Background \*\*\*potassium\*\*\* \*\*channels\*\*\* move into focus.  
AUTHOR: Mathie A.; Clarke C.E.  
CORPORATE SOURCE: A. Mathie, Biophysics Section, Blackett Laboratory, Department of Biological Sciences, Prince Consort Road, London SW7 2BW, United Kingdom. a.mathie@ic.ac.uk  
SOURCE: Journal of Physiology, (15 Jul 2002) 542(2) (334).  
Refs: 7  
ISSN: 0022-3751 CODEN: JPHYA7  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 002 Physiology  
008 Neurology and Neurosurgery  
LANGUAGE: English

L2 ANSWER 13 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:387362 BIOSIS  
DOCUMENT NUMBER: PREV200200387362  
TITLE: Identification of twin-pore \*\*\*potassium\*\*\* \*\*channels\*\*\* in rat mesenteric arteries.  
AUTHOR(S): Gardner, M. J. (1); Burnham, M. P. (1); Gilling, K. E. (1); Johnson, I. T. (1); Edwards, G. (1); Weston, A. H. (1)  
CORPORATE SOURCE: (1) School of Biological Sciences, University of Manchester, Oxford Road, G.38 Stopford Building, Manchester, M13 9PT UK  
SOURCE: British Journal of Pharmacology, (March, 2002) Vol. 135, No. Proceedings Supplement, pp. 307P. <http://www.bjpharmacol.org/>. print.

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Meeting Info.: Meeting of the British Pharmacological Society London, England, UK December 17-21, 2001  
ISSN: 0007-1188.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 14 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:387339 BIOSIS  
DOCUMENT NUMBER: PREV200200387339  
TITLE: Twin-pore domain \*\*\*potassium\*\*\* \*\*\*channels\*\*\* in

rat pulmonary artery: Potential candidates of hypoxic pulmonary vasoconstriction.  
AUTHOR(S): Johnson, I. T. (1); Gardener, M. J. (1); Richards, G. (1);  
Burnham, M. (1); Glen, C. D. (1); Edwards, G. (1); Weston, A. H. (1)

CORPORATE SOURCE: (1) School of Biological Sciences, University of Manchester, Oxford Road, G38 Stopford Building, Manchester, M13 9PT UK

SOURCE: British Journal of Pharmacology, (March, 2002) Vol. 135, No. Proceedings Supplement, pp. 284P.  
http://www.bjppharmacol.org/. print.  
Meeting Info.: Meeting of the British Pharmacological Society London, England, UK December 17-21, 2001  
ISSN: 0007-1188.

DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 15 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:322118 BIOSIS  
DOCUMENT NUMBER: PREV200200322118  
TITLE: Functional expression of \*\*\*TREK\*\*\* -2 K+ channel in cultured rat brain astrocytes.

AUTHOR(S): Gnatenko, Carmen (1); Kim, Donghee  
CORPORATE SOURCE: (1) Chicago Medical School, 3333 Green Bay Road, North

Chicago, IL, 60064 USA  
SOURCE: Biophysical Journal, (January, 2002) Vol. 82, No. 1 Part 2,

pp. 270a. http://intl.biophysj.org/. print.  
Meeting Info.: 46th Annual Meeting of the Biophysical Society San Francisco, California, USA February 23-27, 2002  
ISSN: 0006-3495.

DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 16 OF 73 MEDLINE DUPLICATE 8  
ACCESSION NUMBER: 2002159167 MEDLINE  
DOCUMENT NUMBER: 21888939 PubMed ID: 11891578  
TITLE: \*\*\*Trek\*\*\* -like \*\*\*potassium\*\*\* \*\*\*channels\*\*\*

in rat cardiac ventricular myocytes are activated by intracellular ATP.

AUTHOR: Tan J H C; Liu W; Saint D A  
CORPORATE SOURCE: Cellular Biophysics Laboratory, The Department of Physiology, University of Adelaide, Adelaide SA 5005, Australia.

SOURCE: JOURNAL OF MEMBRANE BIOLOGY, (2002 Feb 1) 185 (3) 201-7.  
Journal code: 0211301. ISSN: 0022-2631.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200207  
ENTRY DATE: Entered STN: 20020314  
Last Updated on STN: 20020713  
Entered Medline: 20020712

L2 ANSWER 17 OF 73 MEDLINE DUPLICATE 9  
ACCESSION NUMBER: 2002165318 MEDLINE  
DOCUMENT NUMBER: 21895240 PubMed ID: 11897089  
TITLE: Functional expression of \*\*\*TREK\*\*\* -2 K+ channel in cultured rat brain astrocytes.

AUTHOR: Gnatenko Carmen; Han Jaehae; Snyder Ann K; Kim Donghee  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University

of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064-3095, USA.  
SOURCE: BRAIN RESEARCH, (2002 Mar 22) 931 (1) 56-67.  
Journal code: 0045503. ISSN: 0006-8993.

PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200205  
ENTRY DATE: Entered STN: 20020319  
Last Updated on STN: 20020522  
Entered Medline: 20020520

L2 ANSWER 18 OF 73 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2002:113616 CAPLUS  
DOCUMENT NUMBER: 137:104322  
TITLE: A New Quantitative Method of Real Time Reverse Transcription Polymerase Chain Reaction Assay Based on Simulation of Polymerase Chain Reaction Kinetics

AUTHOR(S): Liu, Weihong; Saint, David A.  
CORPORATE SOURCE: Department of Physiology, University of Adelaide,

Adelaide, 5005, Australia  
SOURCE: Analytical Biochemistry (2002), 302(1), 52-59  
CODEN: ANBCA2; ISSN: 0003-2697

PUBLISHER: Academic Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 24 THERE ARE 24 CITED  
REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 19 OF 73 MEDLINE  
ACCESSION NUMBER: 2001231249 MEDLINE  
DOCUMENT NUMBER: 21219392 PubMed ID: 11319549  
TITLE: Beam me up, Scottie! \*\*\*TREK\*\*\* channels swing both ways.

COMMENT: Comment on: Nat Neurosci. 2001 May;4(5):486-91  
AUTHOR: Maylie J; Adelman J P  
SOURCE: NATURE NEUROSCIENCE, (2001 May) 4 (5) 457-8.

Journal code: 9809671. ISSN: 1097-6256.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Commentary  
News Announcement

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010529  
Last Updated on STN: 20010529  
Entered Medline: 20010524

L2 ANSWER 20 OF 73 MEDLINE DUPLICATE 10  
ACCESSION NUMBER: 2001667665 MEDLINE  
DOCUMENT NUMBER: 21570223 PubMed ID: 11560940  
TITLE: \*\*\*TREK\*\*\* -1 regulation by nitric oxide and cGMP-dependent protein kinase. An essential role in smooth muscle inhibitory neurotransmission.

AUTHOR: Koh S D; Monaghan K; Sergeant G P; Ro S; Walker R L;  
Sanders K M; Horowitz B

CORPORATE SOURCE: Department of Physiology and Cell Biology, University of Nevada School of Medicine, Reno, Nevada 89557, USA.

CONTRACT NUMBER: DK 41315 (NIDDK)  
HL 49254 (NHLBI)  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2001 Nov 23) 276 (47) 44338-46.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200112  
ENTRY DATE: Entered STN: 20011120  
Last Updated on STN: 20020123  
Entered Medline: 20011220

L2 ANSWER 21 OF 73 MEDLINE DUPLICATE 11  
ACCESSION NUMBER: 2001520013 MEDLINE  
DOCUMENT NUMBER: 21450949 PubMed ID: 11567039  
TITLE: Cns distribution of members of the two-pore-domain (KCNK)

\*\*\*potassium\*\*\* \*\*\*channel\*\*\* family.  
AUTHOR: Talley E M; Solorzano G; Lei Q; Kim D; Bayliss D A  
CORPORATE SOURCE: Department of Pharmacology, University of Virginia,

Charlottesville, Virginia 22908, USA... eml3m@virginia.edu  
CONTRACT NUMBER: MH12091 (NIMH)  
NS33583 (NINDS)  
SOURCE: JOURNAL OF NEUROSCIENCE, (2001 Oct 1) 21 (19) 7491-505.

Journal code: 8102140. ISSN: 1529-2401.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200110  
ENTRY DATE: Entered STN: 20010924  
Last Updated on STN: 20011015  
Entered Medline: 20011011

L2 ANSWER 22 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 2001:240967 SCISEARCH  
THE GENUINE ARTICLE: 410MC  
TITLE: THIK-1 and THIK-2, a novel subfamily of tandem pore domain

K+ channels  
AUTHOR: Rajan S; Wischmeyer E; Karschin C; Preisig-Muller R; Grzeschik K H; Daut J; Karschin A (Reprint); Derst C  
CORPORATE SOURCE: Univ Marburg, Inst Humangenet, D-35032 Marburg, Germany

(Reprint); Univ Marburg, Inst Normal & Pathol Physiol, D-35032 Marburg, Germany; Max Planck Inst Biophys Chem, D-37070 Gottingen, Germany

COUNTRY OF AUTHOR: Germany  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (9 MAR 2001) Vol. 276, No. 10, pp. 7302-7311.

Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC,  
9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.  
ISSN: 0021-9258.

DOCUMENT TYPE: Article; Journal  
LANGUAGE: English  
REFERENCE COUNT: 32  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 23 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:562734 BIOSIS  
DOCUMENT NUMBER: PREV200100562734  
TITLE: SB-209712, a submicromolar inhibitor of \*\*\*TREK\*\*\* -1

\*\*\*potassium\*\*\* \*\*\*channels\*\*\* .  
AUTHOR(S): Meadows, H. J. (1); Ray, A. M. (1); Heath, J. (1); Gager,

T. (1); Leslie, R. A. (1); Randall, A. D. (1)  
CORPORATE SOURCE: (1) Neuroscience Research, GlaxoSmithKline, Harlow UK  
SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2,

pp. 1864. print.  
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001  
ISSN: 0190-5295.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 24 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:562721 BIOSIS  
DOCUMENT NUMBER: PREV200100562721  
TITLE: CNS distribution of members of the two-pore-domain (KCNK)

\*\*\*potassium\*\*\* \*\*\*channel\*\*\* family.  
AUTHOR(S): Talley, E. M. (1); Solorzano, G. (1); Lei, Q. (1); Kim, D.;

Bayliss, D. A. (1)  
CORPORATE SOURCE: (1) Dept. Pharmacol., Univ. of Virginia, Charlottesville, VA USA

SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2,

pp. 1862. print.  
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001  
ISSN: 0190-5295.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 25 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 2001:797985 SCISEARCH  
THE GENUINE ARTICLE: 479JU

TITLE: Anesthetic-sensitive 2P domain K+ channels  
AUTHOR: Patel A J; Honore E (Reprint)  
CORPORATE SOURCE: Inst Pharmacol Mol & Cellulaire, CNRS UMR6097, 600 Route Lucioles, F-06560 Valbonne, France (Reprint); Inst Pharmacol Mol & Cellulaire, CNRS UMR6097, F-06560 Valbonne, France

COUNTRY OF AUTHOR: France  
SOURCE: ANESTHESIOLOGY, (OCT 2001) Vol. 95, No. 4, pp. 1013-1021.

Publisher: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA 19106-3621 USA.  
ISSN: 0003-3022.

DOCUMENT TYPE: General Review; Journal  
LANGUAGE: English  
REFERENCE COUNT: 67

L2 ANSWER 26 OF 73 MEDLINE DUPLICATE 12  
ACCESSION NUMBER: 2001572938 MEDLINE  
DOCUMENT NUMBER: 21535328 PubMed ID: 11680629  
TITLE: Localization of \*\*\*TREK\*\*\* -2 K+ channel domains that

regulate channel kinetics and sensitivity to pressure, fatty acids and pH.

AUTHOR: Kim Y; Gnatenko C; Bang H; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University

of Health Sciences, The Chicago Medical School, IL 60064, USA... donghee.kim@finchcms.edu  
SOURCE: PFLUGERS ARCHIV. EUROPEAN JOURNAL OF PHYSIOLOGY, (2001 Sep) 442 (6) 952-60.  
Journal code: 0154720. ISSN: 0031-6768.

PUB. COUNTRY: Germany; Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200202  
ENTRY DATE: Entered STN: 20011030  
Last Updated on STN: 20020222  
Entered Medline: 20020221

L2 ANSWER 27 OF 73 MEDLINE DUPLICATE 13

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ACCESSION NUMBER: 2001370005 MEDLINE  
DOCUMENT NUMBER: 21198116 PubMed ID: 11301200  
TITLE: Distribution and expression of \*\*\*TREK\*\*\* -1, a two-pore-domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\*, in the adult rat CNS.  
AUTHOR: Hervieu G J; Cludray J E; Gray C W; Green P J; Ranson J L;  
Randall A D; Meadows H J  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals,  
Third Avenue, Essex CM19 5AW, Harlow, UK.  
SOURCE: NEUROSCIENCE, (2001) 103 (4) 899-919.  
Journal code: 7605074. ISSN: 0306-4522.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200106  
ENTRY DATE: Entered STN: 20010702  
Last Updated on STN: 20010702  
Entered Medline: 20010628

L2 ANSWER 28 OF 73 MEDLINE DUPLICATE 14  
ACCESSION NUMBER: 2001231252 MEDLINE  
DOCUMENT NUMBER: 21219399 PubMed ID: 11319556  
TITLE: KCNK2: reversible conversion of a hippocampal potassium leak into a voltage-dependent channel.  
COMMENT: Comment in: Nat Neurosci. 2001 May;4(5):457-8  
AUTHOR: Bockenhauer D; Zilberberg N; Goldstein S A  
CORPORATE SOURCE: Departments of Pediatrics and Cellular and Molecular Physiology, Boyer Center for Molecular Medicine, Yale University School of Medicine, New Haven, Connecticut 06536, USA.  
SOURCE: NATURE NEUROSCIENCE, (2001 May) 4 (5) 486-91.  
Journal code: 9809671. ISSN: 1097-6256.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010529  
Last Updated on STN: 20010529  
Entered Medline: 20010524

L2 ANSWER 29 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R) DUPLICATE 15  
ACCESSION NUMBER: 2001:382496 SCISEARCH  
THE GENUINE ARTICLE: 427NN  
TITLE: Beam me up, Scottie! \*\*\*TREK\*\*\* channels swing both ways  
AUTHOR: Maylie J; Adelman J P (Reprint)  
CORPORATE SOURCE: Oregon Hlth Sci Univ, Vollum Inst, 3181 SW Sam Jackson Pk  
Rd, Portland, OR 97201 USA (Reprint); Oregon Hlth Sci Univ, Vollum Inst, Portland, OR 97201 USA; Oregon Hlth Sci Univ, Dept Obstet & Gynecol, Portland, OR 97201 USA  
COUNTRY OF AUTHOR: USA  
SOURCE: NATURE NEUROSCIENCE, (MAY 2001) Vol. 4, No. 5, pp. 457-458  
Publisher: NATURE AMERICA INC, 345 PARK AVE SOUTH, NEW YORK, NY 10010-1707 USA.  
ISSN: 1097-6256.  
DOCUMENT TYPE: News Announcement; Journal  
LANGUAGE: English  
REFERENCE COUNT: 14  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 30 OF 73 MEDLINE DUPLICATE 16  
ACCESSION NUMBER: 2001403113 MEDLINE  
DOCUMENT NUMBER: 21347345 PubMed ID: 11454447  
TITLE: Lipid and mechano-gated 2P domain K(+) channels.  
AUTHOR: Patel A J; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire,  
CNRS-UMR 6097, 660 route des Lucioles, Sophia Antipolis, 06560, Valbonne, France.  
SOURCE: CURRENT OPINION IN CELL BIOLOGY, (2001 Aug) 13 (4) 422-8.  
Ref: 44  
Journal code: 8913428. ISSN: 0955-0674.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW LITERATURE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200108  
ENTRY DATE: Entered STN: 20010827  
Last Updated on STN: 20010827  
Entered Medline: 20010823

L2 ANSWER 31 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:566568 BIOSIS  
DOCUMENT NUMBER: PREV200100566568  
TITLE: Leak \*\*\*potassium\*\*\* \*\*\*channels\*\*\* with two

pore domains.  
AUTHOR(S): Lesage, F. (1); Reyes, R. (1); Lazdunski, M. (1); Barhanin, J. (1)  
CORPORATE SOURCE: (1) Institut de Pharmacologie Moleculaire et Cellulaire -  
CNRS - UMR 6097, 660 Route des Lucioles, Sophia Antipolis, 06560, Valbonne France  
SOURCE: Kidney & Blood Pressure Research, (2001) Vol. 24, No. 4-6,  
pp. 402-405. print.  
Meeting Info.: Joint Scientific Meeting of the Nephrology Society and the German Working Group for Clinical Nephrology Munster, Germany September 29-October 02, 2001  
ISSN: 1420-4096.  
DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 32 OF 73 MEDLINE DUPLICATE 17  
ACCESSION NUMBER: 2001264970 MEDLINE  
DOCUMENT NUMBER: 21256344 PubMed ID: 11356506  
TITLE: Properties and modulation of mammalian 2P domain K+ channels.  
AUTHOR: Patel A J; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire,  
CNRS-UMR6097, 660 route des Lucioles, Sophia Antipolis, 06560, Valbonne, France.  
SOURCE: TRENDS IN NEUROSCIENCES, (2001 Jun) 24 (6) 339-46. Ref: 65  
Journal code: 7808616. ISSN: 0166-2236.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW LITERATURE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200108  
ENTRY DATE: Entered STN: 20010806  
Last Updated on STN: 20010806  
Entered Medline: 20010802

L2 ANSWER 33 OF 73 MEDLINE DUPLICATE 18  
ACCESSION NUMBER: 2001464485 MEDLINE  
DOCUMENT NUMBER: 21400471 PubMed ID: 11509450  
TITLE: A \*\*\*TREK\*\*\* -1-like \*\*\*potassium\*\*\* \*\*\*channel\*\*\* in atrial cells inhibited by beta-adrenergic stimulation and activated by volatile anesthetics.  
AUTHOR: Terrenoire C; Lauritzen I; Lesage F; Romey G; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, Sophia Antipolis, Valbonne, France.  
SOURCE: CIRCULATION RESEARCH, (2001 Aug 17) 89 (4) 336-42.  
Journal code: 0047103. ISSN: 1524-4571.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200108  
ENTRY DATE: Entered STN: 20010820  
Last Updated on STN: 20010903  
Entered Medline: 20010830

L2 ANSWER 34 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 19  
ACCESSION NUMBER: 2001:473895 BIOSIS  
DOCUMENT NUMBER: PREV200100473895  
TITLE: The electrophysiological characteristics of the mechanosensitive two-pore domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\* in dorsal root ganglion.  
AUTHOR(S): Lim, In Ja (1); Kim, Kyoung Tae (1); Bang, Hyowoon (1)  
CORPORATE SOURCE: (1) Department of Physiology, Chung-Ang University, College of Medicine, Chung-Ang: heeyun@cau.ac.kr South Korea  
SOURCE: Chung-Ang Journal of Medicine, (June, 2001) Vol. 26, No. 2,  
pp. 105-115. print.  
ISSN: 0253-6250.  
DOCUMENT TYPE: Article  
LANGUAGE: Korean  
SUMMARY LANGUAGE: English

L2 ANSWER 35 OF 73 MEDLINE  
ACCESSION NUMBER: 2001543584 MEDLINE  
DOCUMENT NUMBER: 21473899 PubMed ID: 11589988  
TITLE: A comparative study of three cranial sensory ganglia projecting into the oral cavity: in situ hybridization analyses of neurotrophin receptors and thermosensitive cation channels.  
AUTHOR: Matsumoto I; Emori Y; Ninomiya Y; Abe K  
CORPORATE SOURCE: Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, 1-1-1 Yayoi, Bunkyo-ku, 113-8657, Tokyo, Japan.  
SOURCE: BRAIN RESEARCH. MOLECULAR BRAIN

RESEARCH, (2001 Sep 30) 93 (2) 105-12.  
Journal code: 8908640. ISSN: 0169-328X.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200201  
ENTRY DATE: Entered STN: 20011010  
Last Updated on STN: 20020125  
Entered Medline: 20020107

L2 ANSWER 36 OF 73 MEDLINE DUPLICATE 20  
ACCESSION NUMBER: 2001245400 MEDLINE  
DOCUMENT NUMBER: 21105923 PubMed ID: 11165377  
TITLE: Distribution analysis of human two pore domain \*\*\*potassium\*\*\* \*\*\*channels\*\*\* in tissues of the central nervous system and periphery.  
AUTHOR: Medhurst A D; Rennie G; Chapman C G; Meadows H; Duckworth M  
D; Kelsell R E; Gloger I I; Pangalos M N  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals,  
New Frontiers Science Park, Essex CM19 5AW, Harlow, UK.  
SOURCE: BRAIN RESEARCH. MOLECULAR BRAIN RESEARCH, (2001 Jan 31) 86 (1-2) 101-14.  
Journal code: 8908640. ISSN: 0169-328X.

PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010517  
Last Updated on STN: 20010517  
Entered Medline: 20010510

L2 ANSWER 37 OF 73 MEDLINE DUPLICATE 21  
ACCESSION NUMBER: 2001234321 MEDLINE  
DOCUMENT NUMBER: 21095653 PubMed ID: 11172753  
TITLE: The neuroprotective agent sipatrigine (BW619C89) potentially inhibits the human tandem pore-domain K(+) channels \*\*\*TREK\*\*\* -1 and TRAAK.  
AUTHOR: Meadows H J; Chapman C G; Duckworth D M; Kelsell R E;  
Murdoch P R; Nasir S; Rennie G; Randall A D  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals,  
New Frontiers Science Park, Third Avenue, Harlow, Essex CM19 5AW, UK. helen.j.meadows@sbphrd.com  
SOURCE: BRAIN RESEARCH, (2001 Feb 16) 892 (1) 94-101.  
Journal code: 0045503. ISSN: 0006-8993.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010517  
Last Updated on STN: 20010517  
Entered Medline: 20010503

L2 ANSWER 38 OF 73 MEDLINE DUPLICATE 22  
ACCESSION NUMBER: 2001291138 MEDLINE  
DOCUMENT NUMBER: 21268449 PubMed ID: 11374070  
TITLE: Synergistic interaction and the role of C-terminus in the activation of TRAAK K+ channels by pressure, free fatty acids and alkali.  
AUTHOR: Kim Y; Bang H; Gnatenco C; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University of Health Sciences, Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064, USA.  
SOURCE: PFLUGERS ARCHIV. EUROPEAN JOURNAL OF PHYSIOLOGY, (2001 Apr) 442 (1) 64-72.  
Journal code: 0154720. ISSN: 0031-6768.  
PUB. COUNTRY: Germany: Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF302842  
ENTRY MONTH: 200111  
ENTRY DATE: Entered STN: 20011105  
Last Updated on STN: 20011105  
Entered Medline: 20011101

L2 ANSWER 39 OF 73 WPIDS (C) 2002 THOMSON DERWENT DUPLICATE 23  
ACCESSION NUMBER: 2000-549146 [50] WPIDS  
DOC. NO. NON-CPI: N2000-406246  
DOC. NO. CPI: C2000-163964  
TITLE: Novel nucleic acid encoding a \*\*\*TREK\*\*\* -1 \*\*\*potassium\*\*\* \*\*\*channel\*\*\* protein for transfecting cells to be used to identify compounds with anesthetic properties.  
DERWENT CLASS: B04 D16 S03  
INVENTOR(S): HONORE, E; LAZDUNSKI, M; LESAGE, F; PATEL, A J; ROMÉY, G  
PATENT ASSIGNEE(S): (CNRS) CNRS CENT NAT RECH SCI; (CNRS) CENT NAT RECH SCI  
COUNTRY COUNT: 90  
PATENT INFORMATION:

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PATENT NO KIND DATE WEEK LA PG  
WO 2000047738 A2 20000817 (200050)\* EN 26  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT  
KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG ZW  
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU  
CZ DE DK DM EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS  
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO  
RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
AU 2000026854 A 20000829 (200062)  
EP 1144624 A2 20011017 (200169) EN  
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL  
PT SE  
JP 2002536017 W 20021029 (200274) 45

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000047738 A2		WO 2000-IB226	20000211
AU 2000026854 A		AU 2000-26854	20000211
EP 1144624 A2		EP 2000-905230	20000211
		WO 2000-IB226	20000211
JP 2002536017 W		JP 2000-598636	20000211
		WO 2000-IB226	20000211

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000026854 A	Based on	WO 200047738
EP 1144624 A2	Based on	WO 200047738
JP 2002536017 W	Based on	WO 200047738

PRIORITY APPLN. INFO: US 2000-503089 20000211; US 1999-119727P  
19990212

L2 ANSWER 40 OF 73 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:861503 CAPLUS  
DOCUMENT NUMBER: 134:25373  
TITLE: \*\*\*Potassium\*\*\* \*\*\*channel\*\*\* -related  
h-TREK1

polypeptides and polynucleotides for treatment of nervous system disorders  
INVENTOR(S): Hervieu, Guillaume Jean; Meadows, Helen Jane; Randall,  
Andrew David  
PATENT ASSIGNEE(S): Smithkline Beecham PLC, UK  
SOURCE: PCT Int. Appl., 35 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000072863 A2		20001207	WO 2000-GB2107	20000601
WO 2000072863 A3		20010222		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1187627 A2		20020320	EP 2000-935374	20000601
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
PRIORITY APPLN. INFO.:		GB 1999-12733 A	19990601	
		WO 2000-GB2107 W	20000601	

L2 ANSWER 41 OF 73 MEDLINE DUPLICATE 24  
ACCESSION NUMBER: 2001105970 MEDLINE  
DOCUMENT NUMBER: 20564271 PubMed ID: 10993907  
TITLE: Simultaneous activation of p38 MAPK and p42/44 MAPK by ATP  
stimulates the K+ current ITREK in cardiomyocytes.  
AUTHOR: Aïmond F; Rauzier J M; Bony C; Vassort G  
CORPORATE SOURCE: INSERM U-390, Physiopathologie cardiovasculaire, IFR N  
degreess 3, CHU Arnaud de Villeneuve, F-34295 Montpellier Cedex 5, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Dec 15) 275 (50)  
39110-6.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200102  
ENTRY DATE: Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20010208

L2 ANSWER 42 OF 73 MEDLINE  
ACCESSION NUMBER: 2000496079 MEDLINE  
DOCUMENT NUMBER: 20435789 PubMed ID: 10880510  
TITLE: Human TREK2, a 2P domain mechano-sensitive K+ channel with

multiple regulations by polyunsaturated fatty acids, lysophospholipids, and Gs, Gi, and Gq protein-coupled receptors.

AUTHOR: Lesage F; Terrenoire C; Romey G; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire,  
CNRS-UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Sep 15) 275 (37)  
28398-405.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF279890  
ENTRY MONTH: 200010  
ENTRY DATE: Entered STN: 20001027  
Last Updated on STN: 20001027  
Entered Medline: 20001013

L2 ANSWER 43 OF 73 MEDLINE DUPLICATE 25  
ACCESSION NUMBER: 2000298807 MEDLINE  
DOCUMENT NUMBER: 20298807 PubMed ID: 10747911  
TITLE: \*\*\*TREK\*\*\* -2, a new member of the mechanosensitive

tandem-pore K+ channel family.  
AUTHOR: Bang H; Kim Y; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University

of Health Sciences/The Chicago Medical School, North Chicago, Illinois 60064, USA.

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Jun 9) 275 (23)  
17412-9.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences  
OTHER SOURCE: GENBANK-AF196965  
ENTRY MONTH: 200007  
ENTRY DATE: Entered STN: 20000728  
Last Updated on STN: 20000728  
Entered Medline: 20000720

L2 ANSWER 44 OF 73 MEDLINE DUPLICATE 26  
ACCESSION NUMBER: 2000209381 MEDLINE  
DOCUMENT NUMBER: 20209381 PubMed ID: 10744694  
TITLE: Lysophospholipids open the two-pore domain mechano-gated

K(+) channels \*\*\*TREK\*\*\* -1 and TRAAK.  
AUTHOR: Maignret F; Patel A J; Lesage F; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS

UPR 411, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Apr 7) 275 (14)

10128-33.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200005  
ENTRY DATE: Entered STN: 20000518  
Last Updated on STN: 20000518  
Entered Medline: 20000508

L2 ANSWER 45 OF 73 MEDLINE DUPLICATE 27  
ACCESSION NUMBER: 2000200422 MEDLINE  
DOCUMENT NUMBER: 20200422 PubMed ID: 10734076  
TITLE: TASK-3, a new member of the tandem pore K(+) channel family.

AUTHOR: Kim Y; Bang H; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University

of Health Sciences/The Chicago Medical School, North Chicago, Illinois 60064, USA.

CONTRACT NUMBER: HL55363 (NHLBI)  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Mar 31) 275 (13)  
9340-7.

Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF192366

ENTRY MONTH: 200005  
ENTRY DATE: Entered STN: 20000512  
Last Updated on STN: 20000512  
Entered Medline: 20000504

L2 ANSWER 46 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 2000:779832 SCISEARCH  
THE GENUINE ARTICLE: 361ZC  
TITLE: Mutants of a temperature-sensitive two-P domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\*

AUTHOR: Kunkel M T; Johnstone D B; Thomas J H; Salkoff L (Reprint)  
CORPORATE SOURCE: WASHINGTON UNIV, SCH MED, DEPT ANAT & NEUROBIOL, 660 S  
EUCLID AVE, BOX 8108, ST LOUIS, MO 63110

(Reprint); WASHINGTON UNIV, SCH MED, DEPT ANAT & NEUROBIOL, ST LOUIS,  
MO 63110; WASHINGTON UNIV, SCH MED, DEPT GENET, ST LOUIS,  
MO 63110; UNIV WASHINGTON, DEPT GENET, SEATTLE, WA 98195

COUNTRY OF AUTHOR: USA  
SOURCE: JOURNAL OF NEUROSCIENCE, (15 OCT 2000) Vol. 20, No. 20,  
pp. 7517-7524.

Publisher: SOC NEUROSCIENCE, 11 DUPONT CIRCLE, NW, STE  
500, WASHINGTON, DC 20036.

ISSN: 0270-6474.

DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 37

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 47 OF 73 MEDLINE DUPLICATE 28  
ACCESSION NUMBER: 2000296674 MEDLINE  
DOCUMENT NUMBER: 20296674 PubMed ID: 10835347  
TITLE: \*\*\*TREK\*\*\* -1 is a heat-activated background K(+) channel.

AUTHOR: Maignret F; Lauritzen I; Patel A J; Heurteaux C; Reyes R;

Lesage F; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS

UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France. ipmc@ipmc.cnrs.fr

SOURCE: EMBO JOURNAL, (2000 Jun 1) 19 (11) 2483-91.  
Journal code: 8208664. ISSN: 0261-4189.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200007  
ENTRY DATE: Entered STN: 20000728  
Last Updated on STN: 20000728  
Entered Medline: 20000720

L2 ANSWER 48 OF 73 MEDLINE DUPLICATE 29  
ACCESSION NUMBER: 2000237615 MEDLINE  
DOCUMENT NUMBER: 20237615 PubMed ID: 10775263  
TITLE: Polyunsaturated fatty acids are potent neuroprotectors.  
AUTHOR: Lauritzen I; Blondeau N; Heurteaux C; Widmann C; Romey G;

Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS

UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: EMBO JOURNAL, (2000 Apr 17) 19 (8) 1784-93.  
Journal code: 8208664. ISSN: 0261-4189.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200006  
ENTRY DATE: Entered STN: 20000622  
Last Updated on STN: 20000622  
Entered Medline: 20000613

L2 ANSWER 49 OF 73 MEDLINE DUPLICATE 30  
ACCESSION NUMBER: 2000251453 MEDLINE  
DOCUMENT NUMBER: 20251453 PubMed ID: 10790857  
TITLE: Axonal transport of \*\*\*TREK\*\*\* and TRAAK \*\*\*potassium\*\*\* \*\*\*channels\*\*\* in rat sciatic nerves.

AUTHOR: Bearzatto B; Lesage F; Reyes R; Lazdunski M; Laduron P M  
CORPORATE SOURCE: Laboratory of Neurophysiology, Universite Libre de

Bruxelles, Belgium.  
SOURCE: NEUROREPORT, (2000 Apr 7) 11 (5) 927-30.  
Journal code: 9100935. ISSN: 0959-4965.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200007  
ENTRY DATE: Entered STN: 20000720  
Last Updated on STN: 20000720  
Entered Medline: 20000710

L2 ANSWER 50 OF 73 MEDLINE DUPLICATE 31

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ACCESSION NUMBER: 2000242005 MEDLINE  
DOCUMENT NUMBER: 20242005 PubMed ID: 10779373  
TITLE: The neuroprotective agent riluzole activates the two P domain K(+) channels \*\*\*TREK\*\*\* -1 and TRAAK.  
AUTHOR: Duprat F; Lesage F; Patel A J; Fink M; Romey G; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, Centre National de la Recherche Scientifique, Valbonne, France.  
SOURCE: MOLECULAR PHARMACOLOGY, (2000 May) 57 (5) 906-12.

Journal code: 0035623. ISSN: 0026-895X.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200005  
ENTRY DATE: Entered STN: 20000606  
Last Updated on STN: 20000606  
Entered Medline: 20000525

L2 ANSWER 51 OF 73 MEDLINE DUPLICATE 32  
ACCESSION NUMBER: 2001040741 MEDLINE  
DOCUMENT NUMBER: 20508366 PubMed ID: 11053038  
TITLE: Molecular and functional properties of two-pore-domain \*\*\*potassium\*\*\* \*\*\*channels\*\*\*.

AUTHOR: Lesage F; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire, et Cellulaire, Centre National de la Recherche Scientifique-Unité Propre de Recherche 411, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY. RENAL PHYSIOLOGY, (2000 Nov) 279 (5) F793-801. Ref: 64  
Journal code: 100901990. ISSN: 0363-6127.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW) (REVIEW, TUTORIAL)

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200012  
ENTRY DATE: Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20001207

L2 ANSWER 52 OF 73 MEDLINE DUPLICATE 33  
ACCESSION NUMBER: 2000244931 MEDLINE  
DOCUMENT NUMBER: 20244931 PubMed ID: 10784345  
TITLE: Cloning, localisation and functional expression of the human orthologue of the \*\*\*TREK\*\*\* -1 \*\*\*potassium\*\*\*

\*\*\*channel\*\*\*.  
AUTHOR: Meadows H J; Benham C D; Cairns W; Gloger I; Jennings C;

Medhurst A D; Murdoch P; Chapman C G  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals,

Harlow, Essex, UK. Helen\_J\_Meadows@sbphrd.com  
SOURCE: PFLUGERS ARCHIV. EUROPEAN JOURNAL OF PHYSIOLOGY, (2000 Apr) 439 (6) 714-22.

Journal code: 0154720. ISSN: 0031-6768.

PUB. COUNTRY: GERMANY: Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF171068  
ENTRY MONTH: 200006  
ENTRY DATE: Entered STN: 20000629  
Last Updated on STN: 20000629  
Entered Medline: 20000621

L2 ANSWER 53 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:178435 BIOSIS  
DOCUMENT NUMBER: PREV200000178435

TITLE: \*\*\*TREK\*\*\* -2, a new member of the mammalian mechanosensitive K+ channel family.

AUTHOR(S): Bang, Hyowoon (1); Kim, Yangmi (1); Kim, Donghee (1)  
CORPORATE SOURCE: (1) Chicago Medical School, 3333 Green Bay Road, North

Chicago, IL, 60604 USA  
SOURCE: Biophysical Journal, (Jan., 2000) Vol. 78, No. 1 Part 2, pp. 474A.  
Meeting Info.: 44th Annual Meeting of the Biophysical Society. New Orleans, Louisiana, USA February 12-16, 2000  
ISSN: 0006-3495.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 54 OF 73 MEDLINE DUPLICATE 34  
ACCESSION NUMBER: 2000488784 MEDLINE  
DOCUMENT NUMBER: 20492877 PubMed ID: 11039733  
TITLE: Localization of the tandem pore domain K+ channel TASK-1 in

the rat central nervous system.  
AUTHOR: Kindler C H; Pietruck C; Yost C S; Sampson E R; Gray A T  
CORPORATE SOURCE: Department of Anesthesia, University of Basel, Kantonsspital, Switzerland. ckindler@uhbs.ch  
CONTRACT NUMBER: GMS-51372 (NIGMS)

SOURCE: BRAIN RESEARCH. MOLECULAR BRAIN RESEARCH, (2000 Aug 14) 80

(1) 99-108.  
Journal code: 8908640. ISSN: 0169-328X.

PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200103  
ENTRY DATE: Entered STN: 20010404  
Last Updated on STN: 20010404  
Entered Medline: 20010301

L2 ANSWER 55 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE

35  
ACCESSION NUMBER: 2000:353891 BIOSIS  
DOCUMENT NUMBER: PREV200000353891  
TITLE: Expression of \*\*\*TREK\*\*\* -1 \*\*\*potassium\*\*\* \*\*\*channel\*\*\* in GABA-containing neurons in the adult rat CNS.

AUTHOR(S): Cluderay, J. E. (1); Meadows, H. J. (1); Hervieu, G. (1)  
CORPORATE SOURCE: (1) Neuroscience Research, SB, Harlow, Essex UK

SOURCE: European Journal of Neuroscience, (2000) Vol. 12, No. Supplement 11, pp. 23. print.  
Meeting Info.: Meeting of the Federation of European Neuroscience Societies Brighton, UK June 24-28, 2000  
ISSN: 0953-816X.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 56 OF 73 WPIDS (C) 2002 THOMSON DERWENT DUPLICATE 36

ACCESSION NUMBER: 1999-469126 [39] WPIDS  
DOC. NO. NON-CPI: N1999-350285  
DOC. NO. CPI: C1999-137655  
TITLE: New two pore \*\*\*potassium\*\*\* \*\*\*channel\*\*\* used

for, e.g. treatment of cancer, pulmonary, cardiovascular and inflammatory diseases.

DERWENT CLASS: B04 D16 S03  
INVENTOR(S): CHAPMAN, C G; MEADOWS, H J  
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM PLC; (CHAP-I) CHAPMAN C G;

(MEAD-I) MEADOWS H J

COUNTRY COUNT: 21

PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

WO 9937762 A1 19990729 (199939)\* EN 26  
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: JP  
EP 1051485 A1 20001115 (200059) EN  
R: BE CH DE DK FR GB IT LI NL  
US 6242217 B1 20010605 (200133)  
US 2002028485 A1 20020307 (200221)  
JP 2002511233 W 20020416 (200242) 52

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9937762	A1	WO 1998-EP7805	19981202
EP 1051485	A1	EP 1998-962402	19981202
		WO 1998-EP7805	19981202
US 6242217	B1	US 1999-236080	19990125
US 2002028485	A1 Div ex	US 1999-236080	19990125
		US 2001-828746	20010409
JP 2002511233	W	WO 1998-EP7805	19981202
		JP 2000-528670	19981202

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1051485	A1 Based on	WO 9937762
US 2002028485	A1 Div ex	US 6242217
JP 2002511233	W Based on	WO 9937762

PRIORITY APPLN. INFO: GB 1998-22135 19981009; EP 1998-300570 19980127

L2 ANSWER 57 OF 73 WPIDS (C) 2002 THOMSON DERWENT  
ACCESSION NUMBER: 1999-551038 [46] WPIDS  
DOC. NO. NON-CPI: N1999-407763  
DOC. NO. CPI: C1999-160733  
TITLE: New mechanically sensitive \*\*\*potassium\*\*\* \*\*\*channel\*\*\*, used to screen for specific modulators, potential therapeutic agents for heart and nervous system disorders.

DERWENT CLASS: B04 D16 S03  
INVENTOR(S): DUPRAT, F; FINK, M; HONORE, E;  
LAZDUNSKI, M; LESAGE, F  
PATENT ASSIGNEE(S): (CNRS) CNRS CENT NAT RECH SCI  
COUNTRY COUNT: 21  
PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

WO 9945108 A2 19990910 (199946)\* FR 40  
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
W: CA JP US  
FR 2775688 A1 19990910 (199946)  
EP 1058726 A2 20001213 (200066) FR  
R: DE ES FR GB IT  
JP 2002505102 W 20020219 (200216) 41

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9945108	A2	WO 1999-FR404	19990223
FR 2775688	A1	FR 1998-2725	19980305
EP 1058726	A2	EP 1999-904937	19990223
		WO 1999-FR404	19990223
JP 2002505102	W	WO 1999-FR404	19990223
		JP 2000-534640	19990223

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1058726	A2 Based on	WO 9945108
JP 2002505102	W Based on	WO 9945108

PRIORITY APPLN. INFO: FR 1998-2725 19980305

L2 ANSWER 58 OF 73 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1999:566066 CAPLUS  
DOCUMENT NUMBER: 131:168355

TITLE: Identification of human genes for K+Hnov \*\*\*potassium\*\*\* \*\*\*channels\*\*\* by gene discovery methods and their investigative, diagnostic, and therapeutic uses

INVENTOR(S): Miller, Andrew P.; Curran, Mark Edward; Hu, Ping;

Rutter, Marc; Wang, Jian-ying  
PATENT ASSIGNEE(S): Axys Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 112 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 9943696 A1 19990902 WO 1999-US3826 19990222  
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2321194 AA 19990902 CA 1999-2321194 19990222  
AU 9927809 A1 19990915 AU 1999-27809 19990222  
AU 747846 B2 20020523  
EP 1056765 A1 20001206 EP 1999-908356 19990222  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

US 6399761 B1 20020604 US 1999-336643 19990618  
PRIORITY APPLN. INFO.: US 1998-76687P P 19980225  
US 1998-95836P P 19980807  
US 1999-116448P P 19990119  
WO 1999-US3826 W 19990222

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 59 OF 73 MEDLINE DUPLICATE 37  
ACCESSION NUMBER: 1999410397 MEDLINE  
DOCUMENT NUMBER: 99410397 PubMed ID: 10480871

TITLE: Mechano- or acid stimulation, two interactive modes of activation of the \*\*\*TREK\*\*\* -1 \*\*\*potassium\*\*\* \*\*\*channel\*\*\*.

AUTHOR: Maingret F; Patel A J; Lesage F; Lazdunski M; Honore E

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS  
UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Sep 17) 274 (38) 26691-6.

Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences

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ENTRY MONTH: 199910  
ENTRY DATE: Entered STN: 19991026  
Last Updated on STN: 19991026  
Entered Medline: 19991013

L2 ANSWER 60 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:137222 BIOSIS  
DOCUMENT NUMBER: PREV200000137222  
TITLE: Cloning, localisation and functional expression of a novel human 2P domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\*  
AUTHOR(S): Meadows, H. J. (1); Chapman, C. G.; Jennings, C. (1); Hervieu, G. (1); Cluderay, J. (1); Randall, A. R. (1); Gloger, I. S.; Benham, C. D. (1)  
CORPORATE SOURCE: (1) Neuroscience, SmithKline Beecham Pharmaceuticals, Third Avenue, New Frontiers Science Park North, Harlow, Essex, CM19 5AW UK  
SOURCE: Society for Neuroscience Abstracts., (1999) Vol. 25, No. 1-2, pp. 2248.  
Meeting Info.: 29th Annual Meeting of the Society for Neuroscience. Miami Beach, Florida, USA October 23-28, 1999  
Society for Neuroscience  
ISSN: 0190-5295.  
DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 61 OF 73 MEDLINE DUPLICATE 38  
ACCESSION NUMBER: 1999098876 MEDLINE  
DOCUMENT NUMBER: 99098876 PubMed ID: 9880510  
TITLE: TRAAK is a mammalian neuronal mechano-gated K+ channel.  
AUTHOR: Maingret F; Fosset M; Lesage F; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS-UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Jan 15) 274 (3) 1381-7.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences  
ENTRY MONTH: 199902  
ENTRY DATE: Entered STN: 19990223  
Last Updated on STN: 19990223  
Entered Medline: 19990211

L2 ANSWER 62 OF 73 MEDLINE DUPLICATE 39  
ACCESSION NUMBER: 1999215865 MEDLINE  
DOCUMENT NUMBER: 99215865 PubMed ID: 10201682  
TITLE: Local anesthetic inhibition of baseline \*\*\*potassium\*\*\* \*\*\*channels\*\*\* with two pore domains in tandem.  
AUTHOR: Kindler C H; Yost C S; Gray A T  
CORPORATE SOURCE: Department of Anesthesia, University of California, San Francisco 94143-0542, USA.  
CONTRACT NUMBER: GMS-51372 (NIGMS)  
SOURCE: ANESTHESIOLOGY, (1999 Apr) 90 (4) 1092-102.  
Journal code: 1300217. ISSN: 0003-3022.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 199904  
ENTRY DATE: Entered STN: 19990504  
Last Updated on STN: 19990504  
Entered Medline: 19990421

L2 ANSWER 63 OF 73 MEDLINE DUPLICATE 40  
ACCESSION NUMBER: 1999254548 MEDLINE  
DOCUMENT NUMBER: 99254548 PubMed ID: 10321245  
TITLE: Inhalational anesthetics activate two-pore-domain background K+ channels.  
AUTHOR: Patel A J; Honore E; Lesage F; Fink M; Romey G; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire-CNRS-UPR 411, Valbonne, France.  
SOURCE: NATURE NEUROSCIENCE, (1999 May) 2 (5) 422-6.  
Journal code: 9809671. ISSN: 1097-6256.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199905  
ENTRY DATE: Entered STN: 19990607  
Last Updated on STN: 19990607  
Entered Medline: 19990525

L2 ANSWER 64 OF 73 MEDLINE DUPLICATE 41  
ACCESSION NUMBER: 1999103971 MEDLINE  
DOCUMENT NUMBER: 99103971 PubMed ID: 9887061  
TITLE: Potential identification of the O2-sensitive K+ current in a human neuroepithelial body-derived cell line.  
AUTHOR: O'Kelly I; Stephens R H; Peers C; Kemp P J  
CORPORATE SOURCE: School of Biomedical Sciences, University of Leeds, Leeds

LS2 9JT, United Kingdom.  
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY, (1999 Jan) 276 (1 Pt 1) L96-L104.  
Journal code: 0370511. ISSN: 0002-9513.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199903  
ENTRY DATE: Entered STN: 19990324  
Last Updated on STN: 19990324  
Entered Medline: 19990309

L2 ANSWER 65 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 1999:85877 SCISEARCH  
THE GENUINE ARTICLE: 158ED  
TITLE: Potential identification of the O2-sensitive K+ current in a human neuroepithelial body-derived cell line  
AUTHOR: O'Kelly I; Stephens R H; Peers C; Kemp P J (Reprint)  
CORPORATE SOURCE: UNIV LEEDS, SCH BIOMED SCI, WORSLEY MED & DENT BLDG, LEEDS LS2 9JT, W YORKSHIRE, ENGLAND (Reprint); UNIV LEEDS, SCH BIOMED SCI, LEEDS LS2 9JT, W YORKSHIRE, ENGLAND; UNIV LEEDS, INST CARDIOVASC RES, LEEDS LS2 9JT, W YORKSHIRE, ENGLAND  
COUNTRY OF AUTHOR: ENGLAND  
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-LUNG CELLULAR AND MOLECULAR PHYSIOLOGY, (JAN 1999) Vol. 20, No. 1, pp. L96-L104.  
Publisher: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.  
ISSN: 1040-0605.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 25  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 66 OF 73 MEDLINE DUPLICATE 42  
ACCESSION NUMBER: 1999030343 MEDLINE  
DOCUMENT NUMBER: 99030343 PubMed ID: 9812978  
TITLE: Cloning and expression of a novel pH-sensitive two pore domain K+ channel from human kidney.  
AUTHOR: Reyes R; Duprat F; Lesage F; Fink M; Salinas M; Farman N; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS-UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Nov 20) 273 (47) 30863-9.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF084830  
ENTRY MONTH: 199812  
ENTRY DATE: Entered STN: 19990115  
Last Updated on STN: 19990115  
Entered Medline: 19981221

L2 ANSWER 67 OF 73 MEDLINE DUPLICATE 43  
ACCESSION NUMBER: 1998353454 MEDLINE  
DOCUMENT NUMBER: 98353454 PubMed ID: 9687497  
TITLE: A mammalian two pore domain mechano-gated S-like K+ channel.  
AUTHOR: Patel A J; Honore E; Maingret F; Lesage F; Fink M; Duprat F; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS, Valbonne, France.  
SOURCE: EMBO JOURNAL, (1998 Aug 3) 17 (15) 4283-90.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199809  
ENTRY DATE: Entered STN: 19981006  
Last Updated on STN: 19981006  
Entered Medline: 19980922

L2 ANSWER 68 OF 73 MEDLINE DUPLICATE 44  
ACCESSION NUMBER: 1998292450 MEDLINE  
DOCUMENT NUMBER: 98292450 PubMed ID: 9628867.  
TITLE: A neuronal two P domain K+ channel stimulated by arachidonic acid and polyunsaturated fatty acids.  
AUTHOR: Fink M; Lesage F; Duprat F; Heurteaux C; Reyes R; Fosset M; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire-CNRS-UPR 411, Valbonne, France.  
SOURCE: EMBO JOURNAL, (1998 Jun 15) 17 (12) 3297-308.  
Journal code: 8208664. ISSN: 0261-4189.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF056492  
ENTRY MONTH: 199807  
ENTRY DATE: Entered STN: 19980811  
Last Updated on STN: 20000303  
Entered Medline: 19980730

L2 ANSWER 69 OF 73 MEDLINE DUPLICATE 45  
ACCESSION NUMBER: 1998099797 MEDLINE  
DOCUMENT NUMBER: 98099797 PubMed ID: 9437008  
TITLE: An open rectifier \*\*\*potassium\*\*\* \*\*\*channel\*\*\* with two pore domains in tandem cloned from rat cerebellum.  
AUTHOR: Leonoudakis D; Gray A T; Winegar B D; Kindler C H; Harada M; Taylor D M; Chavez R A; Forsayeth J R; Yost C S  
CORPORATE SOURCE: Department of Anesthesia, University of California San Francisco, San Francisco, California 94143-0542, USA.  
CONTRACT NUMBER: GM-08440 (NIGMS)  
GMS-51372 (NIGMS)  
SOURCE: JOURNAL OF NEUROSCIENCE, (1998 Feb 1) 18 (3) 868-77.  
Journal code: 8102140. ISSN: 0270-6474.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF031384  
ENTRY MONTH: 199802  
ENTRY DATE: Entered STN: 19980224  
Last Updated on STN: 20000303  
Entered Medline: 19980206

L2 ANSWER 70 OF 73 MEDLINE DUPLICATE 46  
ACCESSION NUMBER: 1998165556 MEDLINE  
DOCUMENT NUMBER: 98165556 PubMed ID: 9506712  
TITLE: Cloning and functional expression of a novel cardiac two-pore background K+ channel (cTBK-1).  
AUTHOR: Kim D; Fujita A; Horio Y; Kurachi Y  
CORPORATE SOURCE: Department of Pharmacology II, Faculty of Medicine, Osaka University, Suita, Japan.  
SOURCE: CIRCULATION RESEARCH, (1998 Mar 9) 82 (4) 513-8.  
Journal code: 0047103. ISSN: 0009-7330.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AB008537  
ENTRY MONTH: 199803  
ENTRY DATE: Entered STN: 19980410  
Last Updated on STN: 19980410  
Entered Medline: 19980327

L2 ANSWER 71 OF 73 MEDLINE DUPLICATE 47  
ACCESSION NUMBER: 1998389638 MEDLINE  
DOCUMENT NUMBER: 98389638 PubMed ID: 9721223  
TITLE: Mapping of human \*\*\*potassium\*\*\* \*\*\*channel\*\*\* genes \*\*\*TREK\*\*\* -1 (KCNK2) and TASK (KCNK3) to chromosomes 1q41 and 2p23.  
AUTHOR: Lesage F; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS, Valbonne, 660 route des Lucioles, Sophia Antipolis, 06560, France.  
SOURCE: GENOMICS, (1998 Aug 1) 51 (3) 478-9.  
Journal code: 8800135. ISSN: 0888-7543.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF006823  
ENTRY MONTH: 199810  
ENTRY DATE: Entered STN: 19981020  
Last Updated on STN: 19981020  
Entered Medline: 19981005

L2 ANSWER 72 OF 73 MEDLINE DUPLICATE 48  
ACCESSION NUMBER: 97459932 MEDLINE  
DOCUMENT NUMBER: 97459932 PubMed ID: 9312005  
TITLE: TASK, a human background K+ channel to sense external pH variations near physiological pH.  
AUTHOR: Duprat F; Lesage F; Fink M; Reyes R; Heurteaux C; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: EMBO JOURNAL, (1997 Sep 1) 16 (17) 5464-71.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF006823; GENBANK-AF006824  
ENTRY MONTH: 199712  
ENTRY DATE: Entered STN: 19980109  
Last Updated on STN: 19980109

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Entered Medline: 19971215

L2 ANSWER 73 OF 73 MEDLINE DUPLICATE 49  
ACCESSION NUMBER: 97157476 MEDLINE  
DOCUMENT NUMBER: 97157476 PubMed ID: 9003761  
TITLE: Cloning, functional expression and brain localization of a  
novel unconventional outward rectifier K<sup>+</sup> channel.  
AUTHOR: Fink M; Duprat F; Lesage F; Reyes R; Romey G;  
Heurteaux C;  
Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Molculaire et  
Cellulaire, CNRS,  
Valbonne, France.  
SOURCE: EMBO JOURNAL, (1996 Dec 16) 15 (24) 6854-62.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-U73488  
ENTRY MONTH: 199702  
ENTRY DATE: Entered STN: 19970227  
Last Updated on STN: 19980206  
Entered Medline: 19970213

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FILE 'MEDLINE' ENTERED  
FILE 'JAPIO' ENTERED  
FILE 'BIOSIS'  
FILE 'SCISEARCH'  
FILE 'WPIDS'  
FILE 'CAPLUS'  
FILE 'EMBASE'  
=> potassium channel and trek  
L1 217 POTASSIUM CHANNEL AND TREK

=> dup rem II  
PROCESSING COMPLETED FOR L1  
L2 73 DUP REM L1 (144 DUPLICATES REMOVED)

=> d ibib I2 1-73

L2 ANSWER 1 OF 73 MEDLINE  
ACCESSION NUMBER: 200216584 MEDLINE  
DOCUMENT NUMBER: 21896085 PubMed ID: 11897836  
TITLE: The \*\*\*TREK\*\*\* two P domain K+ channels.  
COMMENT: Comment on: J Physiol. 2002 Mar 15;539(Pt 3):657-68  
AUTHOR: Patel Amanda; Honore Eric  
CORPORATE SOURCE: IPMC-CNRS, 660 Route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF PHYSIOLOGY, (2002 Mar 15) 539 (Pt 3) 647.

Journal code: 0266262. ISSN: 0022-3751.  
PUB. COUNTRY: England; United Kingdom  
DOCUMENT TYPE: Commentary  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200206  
ENTRY DATE: Entered STN: 20020319  
Last Updated on STN: 20020621  
Entered Medline: 20020620

L2 ANSWER 2 OF 73 MEDLINE DUPLICATE 1  
ACCESSION NUMBER: 2002266838 MEDLINE  
DOCUMENT NUMBER: 22001365 PubMed ID: 11886861  
TITLE: Modulation of TASK-1 (Kcnk3) and TASK-3 (Kcnk9) \*\*\*potassium\*\*\* \*\*\*channels\*\*\* : volatile anesthetics and neurotransmitters share a molecular site of action.  
AUTHOR: Talley Edmund M; Bayliss Douglas A  
CORPORATE SOURCE: Department of Pharmacology, University of Virginia, Charlottesville, Virginia 22908-0735, USA.. emt3m@virginia.edu  
CONTRACT NUMBER: NS33583 (NINDS)  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2002 May 17) 277 (20) 17733-42.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF031384; GENBANK-AF391084  
ENTRY MONTH: 200207  
ENTRY DATE: Entered STN: 20020514  
Last Updated on STN: 20020717  
Entered Medline: 20020716

L2 ANSWER 3 OF 73 MEDLINE DUPLICATE 2  
ACCESSION NUMBER: 2002322564 MEDLINE  
DOCUMENT NUMBER: 22060496 PubMed ID: 12065410  
TITLE: An intracellular proton sensor commands lipid- and mechano-gating of the K(+) channel \*\*\*TREK\*\*\* -1.  
AUTHOR: Honore Eric; Maignet Francois; Lazdunski Michel; Patel Amanda Jane  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS-UMR 6097, 660 route des Lucioles, Sophia Antipolis, F-06560 Valbonne, France.

SOURCE: EMBO JOURNAL, (2002 Jun 17) 21 (12) 2968-76.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: England; United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200208  
ENTRY DATE: Entered STN: 20020615  
Last Updated on STN: 20020830  
Entered Medline: 20020829

L2 ANSWER 4 OF 73 MEDLINE DUPLICATE 3  
ACCESSION NUMBER: 2002238785 MEDLINE  
DOCUMENT NUMBER: 21972941 PubMed ID: 11976378  
TITLE: Long-term alteration of S-type potassium current and passive membrane properties in aplysia sensory neurons following axotomy.  
AUTHOR: Ungless Mark A; Gasull Xavier; Walters Edgar T  
CORPORATE SOURCE: Department of Integrative Biology and Pharmacology, University of Texas-Houston Medical School, Houston, Texas 77030, USA.  
CONTRACT NUMBER: NS-35882 (NINDS)  
NS-35979 (NINDS)  
RR-10294 (NCRR)

SOURCE: JOURNAL OF NEUROPHYSIOLOGY, (2002 May) 87 (5) 2408-20.  
Journal code: 0375404. ISSN: 0022-3077.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences  
ENTRY MONTH: 200206  
ENTRY DATE: Entered STN: 20020429  
Last Updated on STN: 20020824  
Entered Medline: 20020628

L2 ANSWER 5 OF 73 MEDLINE DUPLICATE 4  
ACCESSION NUMBER: 2002191200 MEDLINE  
DOCUMENT NUMBER: 21896087 PubMed ID: 11897838  
TITLE: Expression pattern and functional characteristics of two novel splice variants of the two-pore-domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\* \*\*\*TREK\*\*\* -2.  
COMMENT: Comment in: J Physiol. 2002 Mar 15;539(Pt 3):647  
AUTHOR: Gu Wenli; Schlichthorl Gunter; Hirsch Jochen R; Engels Hartmut; Karschin Christine; Karschin Andreas; Derst Christian; Steinlein Ortrud K; Daut Jurgen  
CORPORATE SOURCE: Institut fuer Humangenetik, Universitat Bonn, Wilhelmstrasse 31, D-53111 Bonn, Germany.  
SOURCE: JOURNAL OF PHYSIOLOGY, (2002 Mar 15) 539 (Pt 3) 657-68.

Journal code: 0266262. ISSN: 0022-3751.  
PUB. COUNTRY: England; United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200206  
ENTRY DATE: Entered STN: 20020403  
Last Updated on STN: 20020621  
Entered Medline: 20020620

L2 ANSWER 6 OF 73 CAPLUS COPYRIGHT 2002 ACS  
DUPLICATE 5  
ACCESSION NUMBER: 2002322996 CAPLUS  
DOCUMENT NUMBER: 13743030  
TITLE: The \*\*\*TREK\*\*\* two P domain K+ channels  
AUTHOR(S): Patel, Amanda; Honore, Eric  
CORPORATE SOURCE: IPMC-CNRS, Valbonne, 06560, Fr.  
SOURCE: Journal of Physiology (Cambridge, United Kingdom) (2002), 539(3), 647  
CODEN: JPHYA7; ISSN: 0022-3751  
PUBLISHER: Cambridge University Press  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English  
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 7 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:365502 BIOSIS  
DOCUMENT NUMBER: PREV200200365502  
TITLE: Several tandem-pore K+ channels contribute to background K+ current in cerebellar granule neurons.  
AUTHOR(S): Han, Jaehae (1); Truell, Jeffrey (1); Gnatenco, Carmen (1); Kim, Donghee (1)  
CORPORATE SOURCE: (1) Chicago Medical School, Chicago USA  
SOURCE: Biophysical Journal, (January, 2002) Vol. 82, No. 1 Part 2, pp. 636a. <http://intl.biophysj.org/>. print.  
Meeting Info.: 46th Annual Meeting of the Biophysical Society San Francisco, California, USA February 23-27, 2002  
ISSN: 0006-3495.

DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 8 OF 73 MEDLINE DUPLICATE 6  
ACCESSION NUMBER: 2002376647 IN-PROCESS  
DOCUMENT NUMBER: 22117977 PubMed ID: 12122143  
TITLE: Characterization of four types of background \*\*\*potassium\*\*\* \*\*\*channels\*\*\* in rat cerebellar granule neurons.  
AUTHOR: Han Jaehae; Truell Jeffrey; Gnatenco Carmen; Kim Donghee  
CORPORATE SOURCE: Department of Physiology, Gyeongsang National University School of Medicine, Chinju, Korea.  
SOURCE: JOURNAL OF PHYSIOLOGY, (2002 Jul 15) 542 (Pt 2) 431-44.  
Journal code: 0266262. ISSN: 0022-3751.  
PUB. COUNTRY: England; United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals  
ENTRY DATE: Entered STN: 20020718  
Last Updated on STN: 20020718

L2 ANSWER 9 OF 73 MEDLINE  
ACCESSION NUMBER: 2002309957 MEDLINE  
DOCUMENT NUMBER: 22047240 PubMed ID: 12051718  
TITLE: Validation of a quantitative method for real time PCR kinetics.  
AUTHOR: Liu Weihong; Saint David A  
CORPORATE SOURCE: Department of Physiology, University of

Adelaide, Adelaide, SA 5005, Australia.  
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2002 Jun 7) 294 (2) 347-53.  
Journal code: 0372516. ISSN: 0006-291X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (VALIDATION STUDIES)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200207  
ENTRY DATE: Entered STN: 20020611  
Last Updated on STN: 20020717  
Entered Medline: 20020716

L2 ANSWER 10 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:363310 BIOSIS  
DOCUMENT NUMBER: PREV200200363310  
TITLE: Expression pattern and functional characteristics of two novel splice variants of the two-pore-domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\* \*\*\*TREK\*\*\* -2.  
AUTHOR(S): Gu, W. (1); Schlichthorl, G. (1); Hirsch, J. R. (1); Engels, H. (1); Karschin, C. (1); Karschin, A. (1); Derst, C. (1); Daut, J. (1)  
CORPORATE SOURCE: (1) Institut fuer Normale und Pathologische Physiologie, Universitaet Marburg, Deutschhausstrasse 2, 35037, Marburg Germany  
SOURCE: Pfluegers Archiv European Journal of Physiology, (March, 2002) Vol. 443, No. Supplement 1, pp. S341. <http://link.springer.de/link/service/journals/00424/print>.  
Meeting Info.: 81st Annual Joint Meeting of the Physiological Society, the Scandinavian Physiological Society and the German Physiological Society Tuebingen, Germany March 15-19, 2002  
ISSN: 0031-6768.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 11 OF 73 MEDLINE DUPLICATE 7  
ACCESSION NUMBER: 2002174336 MEDLINE  
DOCUMENT NUMBER: 21903759 PubMed ID: 11906167  
TITLE: Molecular basis of the voltage-dependent gating of \*\*\*TREK\*\*\* -1, a mechano-sensitive K(+) channel.  
AUTHOR: Maignet Francois; Honore Eric; Lazdunski Michel; Patel Amanda Jane  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS, UMR 6097, Sophia Antipolis, Valbonne, France.  
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2002 Mar 29) 292 (2) 339-46.  
Journal code: 0372516. ISSN: 0006-291X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200205  
ENTRY DATE: Entered STN: 20020322  
Last Updated on STN: 20020507  
Entered Medline: 20020506

L2 ANSWER 12 OF 73 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 2002372279 EMBASE  
TITLE: Background \*\*\*potassium\*\*\* \*\*\*channels\*\*\* move into focus.  
AUTHOR: Mathie A.; Clarke C.E.  
CORPORATE SOURCE: A. Mathie, Biophysics Section, Blackett Laboratory, Department of Biological Sciences, Prince Consort Road, London SW7 2BW, United Kingdom. [a.mathie@ic.ac.uk](mailto:a.mathie@ic.ac.uk)  
SOURCE: Journal of Physiology, (15 Jul 2002) 542/2 (334). Refs: 7  
ISSN: 0022-3751 CODEN: JPHYA7  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 002 Physiology  
008 Neurology and Neurosurgery  
LANGUAGE: English

L2 ANSWER 13 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:387362 BIOSIS  
DOCUMENT NUMBER: PREV200200387362  
TITLE: Identification of twin-pore \*\*\*potassium\*\*\* \*\*\*channels\*\*\* in rat mesenteric arteries.  
AUTHOR(S): Gardener, M. J. (1); Burnham, M. P. (1); Gilling, K. E. (1); Johnson, I. T. (1); Edwards, G. (1); Weston, A. H. (1)  
CORPORATE SOURCE: (1) School of Biological Sciences, University of Manchester, Oxford Road, G.38 Stopford Building, Manchester, M13 9PT UK  
SOURCE: British Journal of Pharmacology, (March, 2002) Vol. 135, No. Proceedings Supplement, pp. 307P. <http://www.bjpharmacol.org/>. print.

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Meeting Info.: Meeting of the British Pharmacological Society London, England, UK December 17-21, 2001  
ISSN: 0007-1188.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 14 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:387339 BIOSIS  
DOCUMENT NUMBER: PREV200200387339  
TITLE: Twin-pore domain \*\*\*potassium\*\*\* \*\*\*channels\*\*\* in

rat pulmonary artery: Potential candidates of hypoxic pulmonary vasoconstriction.  
AUTHOR(S): Johnson, I. T. (1); Gardener, M. J. (1); Richards, G. (1);  
Burnham, M. (1); Glen, C. D. (1); Edwards, G. (1); Weston, A. H. (1)

CORPORATE SOURCE: (1) School of Biological Sciences, University of Manchester, Oxford Road, G38 Stopford Building, Manchester, M13 9PT UK  
SOURCE: British Journal of Pharmacology, (March, 2002) Vol. 135,  
No. Proceedings Supplement, pp. 284P.  
http://www.bjppharmacol.org/ print.  
Meeting Info.: Meeting of the British Pharmacological Society London, England, UK December 17-21, 2001  
ISSN: 0007-1188.

DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 15 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:322118 BIOSIS  
DOCUMENT NUMBER: PREV200200322118  
TITLE: Functional expression of \*\*\*TREK\*\*\* -2 K+ channel in cultured rat brain astrocytes.

AUTHOR(S): Gnatenko, Carmen (1); Kim, Donghee  
CORPORATE SOURCE: (1) Chicago Medical School, 3333 Green Bay Road, North

Chicago, IL, 60064 USA  
SOURCE: Biophysical Journal, (January, 2002) Vol. 82, No. 1 Part 2,  
pp. 270a. http://intl.biophysj.org/ print.  
Meeting Info.: 46th Annual Meeting of the Biophysical Society San Francisco, California, USA February 23-27, 2002  
ISSN: 0006-3495.

DOCUMENT TYPE: Conference  
LANGUAGE: English

L2 ANSWER 16 OF 73 MEDLINE DUPLICATE 8  
ACCESSION NUMBER: 2002159167 MEDLINE  
DOCUMENT NUMBER: 21888939 PubMed ID: 11891578  
TITLE: \*\*\*Trek\*\*\* -like \*\*\*potassium\*\*\* \*\*\*channels\*\*\*

in rat cardiac ventricular myocytes are activated by intracellular ATP.

AUTHOR: Tan J H C; Liu W; Saint D A  
CORPORATE SOURCE: Cellular Biophysics Laboratory, The Department of

Physiology, University of Adelaide, Adelaide SA 5005, Australia.  
SOURCE: JOURNAL OF MEMBRANE BIOLOGY, (2002 Feb 1) 185 (3) 201-7.  
Journal code: 0211301. ISSN: 0022-2631.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200207  
ENTRY DATE: Entered STN: 20020314  
Last Updated on STN: 20020713  
Entered Medline: 20020712

L2 ANSWER 17 OF 73 MEDLINE DUPLICATE 9  
ACCESSION NUMBER: 2002165318 MEDLINE  
DOCUMENT NUMBER: 21895240 PubMed ID: 11897089  
TITLE: Functional expression of \*\*\*TREK\*\*\* -2 K+ channel in cultured rat brain astrocytes.

AUTHOR: Gnatenko Carmen; Han Jahee; Snyder Ann K; Kim Donghee  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University

of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064-3095, USA.  
SOURCE: BRAIN RESEARCH, (2002 Mar 22) 931 (1) 56-67.  
Journal code: 0045503. ISSN: 0006-8993.

PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200205  
ENTRY DATE: Entered STN: 20020319  
Last Updated on STN: 20020522  
Entered Medline: 20020520

L2 ANSWER 18 OF 73 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2002:113616 CAPLUS  
DOCUMENT NUMBER: 137:104322  
TITLE: A New Quantitative Method of Real Time Reverse Transcription Polymerase Chain Reaction Assay Based on Simulation of Polymerase Chain Reaction Kinetics

AUTHOR(S): Liu, Weihong; Saint, David A.  
CORPORATE SOURCE: Department of Physiology, University of Adelaide,

Adelaide, 5005, Australia  
SOURCE: Analytical Biochemistry (2002), 302(1), 52-59  
CODEN: ANBCA2; ISSN: 0003-2697

PUBLISHER: Academic Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L2 ANSWER 19 OF 73 MEDLINE  
ACCESSION NUMBER: 2001231249 MEDLINE  
DOCUMENT NUMBER: 21219392 PubMed ID: 11319549  
TITLE: Beam me up, Scottie! \*\*\*TREK\*\*\* channels swing both ways.

COMMENT: Comment on: Nat Neurosci. 2001 May;4(5):486-91  
AUTHOR: Maylie J; Adelman J P  
SOURCE: NATURE NEUROSCIENCE, (2001 May) 4 (5) 457-8.

Journal code: 9809671. ISSN: 1097-6256.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Commentary  
News Announcement  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010529  
Last Updated on STN: 20010529  
Entered Medline: 20010524

L2 ANSWER 20 OF 73 MEDLINE DUPLICATE 10  
ACCESSION NUMBER: 2001667665 MEDLINE  
DOCUMENT NUMBER: 21570223 PubMed ID: 11560940  
TITLE: \*\*\*TREK\*\*\* -1 regulation by nitric oxide and cGMP-dependent protein kinase. An essential role in smooth muscle inhibitory neurotransmission.

AUTHOR: Koh S D; Monaghan K; Sergeant G P; Ro S; Walker R L;  
Sanders K M; Horowitz B

CORPORATE SOURCE: Department of Physiology and Cell Biology, University of Nevada School of Medicine, Reno, Nevada 89557, USA.  
CONTRACT NUMBER: DK 41315 (NIDDK)  
HL 49254 (NHLBI)

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2001 Nov 23) 276 (47)  
44338-46.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200112  
ENTRY DATE: Entered STN: 20011120  
Last Updated on STN: 20020123  
Entered Medline: 20011220

L2 ANSWER 21 OF 73 MEDLINE DUPLICATE 11  
ACCESSION NUMBER: 2001520013 MEDLINE  
DOCUMENT NUMBER: 21450949 PubMed ID: 11567039  
TITLE: Cns distribution of members of the two-pore-domain (KCNK)

\*\*\*potassium\*\*\* \*\*\*channel\*\*\* family.  
AUTHOR: Talley E M; Solorzano G; Lei Q; Kim D; Bayliss D A  
CORPORATE SOURCE: Department of Pharmacology, University of Virginia, Charlottesville, Virginia 22908, USA... emt3m@virginia.edu  
CONTRACT NUMBER: MH12091 (NIMH)  
NS33583 (NINDS)  
SOURCE: JOURNAL OF NEUROSCIENCE, (2001 Oct 1) 21 (19) 7491-505.  
Journal code: 8102140. ISSN: 1529-2401.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200110  
ENTRY DATE: Entered STN: 20010924  
Last Updated on STN: 20011015  
Entered Medline: 20011011

L2 ANSWER 22 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 2001:240967 SCISEARCH  
THE GENUINE ARTICLE: 410MC  
TITLE: THIK-1 and THIK-2, a novel subfamily of tandem pore domain K+ channels

AUTHOR: Rajan S; Wischmeyer E; Karschin C; Preisig-Muller R; Grzeschik K H; Daut J; Karschin A (Reprint); Derst C  
CORPORATE SOURCE: Univ Marburg, Inst Humangenet, D-35032 Marburg, Germany  
(Reprint); Univ Marburg, Inst Normal & Pathol Physiol, D-35032 Marburg, Germany; Max Planck Inst Biophys

Chem, D-37070 Gottingen, Germany  
COUNTRY OF AUTHOR: Germany  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (9 MAR 2001) Vol. 276,  
No. 10, pp. 7302-7311.

Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC,  
9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.  
ISSN: 0021-9258.

DOCUMENT TYPE: Article; Journal  
LANGUAGE: English  
REFERENCE COUNT: 32  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 23 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:562734 BIOSIS  
DOCUMENT NUMBER: PREV200100562734  
TITLE: SB-209712, a submicromolar inhibitor of \*\*\*TREK\*\*\* -1

\*\*\*potassium\*\*\* \*\*\*channels\*\*\*  
AUTHOR(S): Meadows, H. J. (1); Ray, A. M. (1); Heath, J. (1); Gager,

T. (1); Leslie, R. A. (1); Randall, A. D. (1)  
CORPORATE SOURCE: (1) Neuroscience Research, GlaxoSmithKline, Harlow UK  
SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2,

pp. 1864. print.  
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001  
ISSN: 0190-5295.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 24 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:562721 BIOSIS  
DOCUMENT NUMBER: PREV200100562721  
TITLE: CNS distribution of members of the two-pore-domain (KCNK)

\*\*\*potassium\*\*\* \*\*\*channel\*\*\* family.  
AUTHOR(S): Talley, E. M. (1); Solorzano, G. (1); Lei, Q. (1); Kim, D.;

Bayliss, D. A. (1)  
CORPORATE SOURCE: (1) Dept. Pharmacol., Univ. of Virginia, Charlottesville, VA USA  
SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2,

pp. 1862. print.  
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001  
ISSN: 0190-5295.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 25 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 2001:797985 SCISEARCH  
THE GENUINE ARTICLE: 479JU  
TITLE: Anesthetic-sensitive 2P domain K+ channels

AUTHOR: Patel A J; Honore E (Reprint)  
CORPORATE SOURCE: Inst Pharmacol Mol & Cellulaire, CNRS UMR6097, 600 Route Lucioles, F-06560 Valbonne, France (Reprint); Inst Pharmacol Mol & Cellulaire, CNRS UMR6097, F-06560 Valbonne, France

COUNTRY OF AUTHOR: France  
SOURCE: ANESTHESIOLOGY, (OCT 2001) Vol. 95, No. 4, pp. 1013-1021.

Publisher: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA 19106-3621 USA.  
ISSN: 0003-3022.

DOCUMENT TYPE: General Review; Journal  
LANGUAGE: English  
REFERENCE COUNT: 67

L2 ANSWER 26 OF 73 MEDLINE DUPLICATE 12  
ACCESSION NUMBER: 2001572938 MEDLINE  
DOCUMENT NUMBER: 21535328 PubMed ID: 11680629  
TITLE: Localization of \*\*\*TREK\*\*\* -2 K+ channel domains that

regulate channel kinetics and sensitivity to pressure, fatty acids and pH.

AUTHOR: Kim Y; Gnatenko C; Bang H; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University

of Health Sciences, The Chicago Medical School, IL 60064, USA... donghee.kim@finchcms.edu  
SOURCE: PFLUGERS ARCHIV. EUROPEAN JOURNAL OF PHYSIOLOGY, (2001 Sep)

442 (6) 952-60.  
Journal code: 0154720. ISSN: 0031-6768.

PUB. COUNTRY: Germany; Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200202  
ENTRY DATE: Entered STN: 20011030  
Last Updated on STN: 20020222  
Entered Medline: 20020221

L2 ANSWER 27 OF 73 MEDLINE DUPLICATE 13

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ACCESSION NUMBER: 2001370005 MEDLINE  
DOCUMENT NUMBER: 21198116 PubMed ID: 11301200  
TITLE: Distribution and expression of \*\*\*TREK\*\*\* -1, a two-pore-domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\*, in the adult rat CNS.  
AUTHOR: Hervieu G J; Cluderay J E; Gray C W; Green P J; Ranson J L;  
Randall A D; Meadows H J  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals,  
Third Avenue, Essex CM19 5AW, Harlow, UK.  
SOURCE: NEUROSCIENCE, (2001) 103 (4) 899-919.  
Journal code: 7605074. ISSN: 0306-4522.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200106  
ENTRY DATE: Entered STN: 20010702  
Last Updated on STN: 20010702  
Entered Medline: 20010628

L2 ANSWER 28 OF 73 MEDLINE DUPLICATE 14  
ACCESSION NUMBER: 2001231252 MEDLINE  
DOCUMENT NUMBER: 21219399 PubMed ID: 11319556  
TITLE: KCNK2: reversible conversion of a hippocampal potassium leak into a voltage-dependent channel.  
COMMENT: Comment in: Nat Neurosci. 2001 May;4(5):457-8  
AUTHOR: Bockenhauer D; Zilberberg N; Goldstein S A  
CORPORATE SOURCE: Departments of Pediatrics and Cellular and Molecular Physiology, Boyer Center for Molecular Medicine, Yale University School of Medicine, New Haven, Connecticut 06536, USA.  
SOURCE: NATURE NEUROSCIENCE, (2001 May) 4 (5) 486-91.  
Journal code: 9809671. ISSN: 1097-6256.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010529  
Last Updated on STN: 20010529  
Entered Medline: 20010524

L2 ANSWER 29 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R) DUPLICATE 15  
ACCESSION NUMBER: 2001:382496 SCISEARCH  
THE GENUINE ARTICLE: 427NN  
TITLE: Beam me up, Scottie! \*\*\*TREK\*\*\* channels swing both ways  
AUTHOR: Maylie J; Adelman J P (Reprint)  
CORPORATE SOURCE: Oregon Hlth Sci Univ, Vollum Inst, 3181 SW Sam Jackson Pk  
Rd, Portland, OR 97201 USA (Reprint); Oregon Hlth Sci Univ, Vollum Inst, Portland, OR 97201 USA; Oregon Hlth Sci Univ, Dept Obst & Gynecol, Portland, OR 97201 USA  
COUNTRY OF AUTHOR: USA  
SOURCE: NATURE NEUROSCIENCE, (MAY 2001) Vol. 4, No. 5, pp. 457-458  
Publisher: NATURE AMERICA INC, 345 PARK AVE SOUTH, NEW YORK, NY 10010-1707 USA.  
ISSN: 1097-6256.

DOCUMENT TYPE: News Announcement; Journal  
LANGUAGE: English  
REFERENCE COUNT: 14  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 30 OF 73 MEDLINE DUPLICATE 16  
ACCESSION NUMBER: 2001403113 MEDLINE  
DOCUMENT NUMBER: 21347345 PubMed ID: 11454447  
TITLE: Lipid and mechano-gated 2P domain K(+) channels.  
AUTHOR: Patel A J; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire,  
CNRS-UMR 6097, 660 route des Lucioles, Sophia Antipolis, 06560, Valbonne, France.  
SOURCE: CURRENT OPINION IN CELL BIOLOGY, (2001 Aug) 13 (4) 422-8.  
Ref: 44  
Journal code: 8913428. ISSN: 0955-0674.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW LITERATURE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200108  
ENTRY DATE: Entered STN: 20010827  
Last Updated on STN: 20010827  
Entered Medline: 20010823

L2 ANSWER 31 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:566568 BIOSIS  
DOCUMENT NUMBER: PREV200100566568  
TITLE: Leak \*\*\*potassium\*\*\* \*\*\*channels\*\*\* with two

pore domains.  
AUTHOR(S): Lesage, F. (1); Reyes, R. (1); Lazdunski, M. (1); Barhanin, J. (1)  
CORPORATE SOURCE: (1) Institut de Pharmacologie Moleculaire et Cellulaire -  
CNRS - UMR 6097, 660 Route des Lucioles, Sophia Antipolis, 06560, Valbonne France  
SOURCE: Kidney & Blood Pressure Research, (2001) Vol. 24, No. 4-6,  
pp. 402-405. print.  
Meeting Info.: Joint Scientific Meeting of the Nephrology Society and the German Working Group for Clinical Nephrology Munster, Germany September 29-October 02, 2001  
ISSN: 1420-4096.  
DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 32 OF 73 MEDLINE DUPLICATE 17  
ACCESSION NUMBER: 2001264970 MEDLINE  
DOCUMENT NUMBER: 21256344 PubMed ID: 11356506  
TITLE: Properties and modulation of mammalian 2P domain K+ channels.  
AUTHOR: Patel A J; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire,  
CNRS-UMR6097, 660 route des Lucioles, Sophia Antipolis, 06560, Valbonne, France.  
SOURCE: TRENDS IN NEUROSCIENCES, (2001 Jun) 24 (6) 339-46. Ref: 65  
Journal code: 7808616. ISSN: 0166-2236.  
PUB. COUNTRY: England: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW LITERATURE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200108  
ENTRY DATE: Entered STN: 20010806  
Last Updated on STN: 20010806  
Entered Medline: 20010802

L2 ANSWER 33 OF 73 MEDLINE DUPLICATE 18  
ACCESSION NUMBER: 2001464485 MEDLINE  
DOCUMENT NUMBER: 21400471 PubMed ID: 11509450  
TITLE: A \*\*\*TREK\*\*\* -1-like \*\*\*potassium\*\*\* \*\*\*channel\*\*\* in atrial cells inhibited by beta-adrenergic stimulation and activated by volatile anesthetics.  
AUTHOR: Terrenoire C; Lauritzen I; Lesage F; Romey G; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, Sophia Antipolis, Valbonne, France.  
SOURCE: CIRCULATION RESEARCH, (2001 Aug 17) 89 (4) 336-42.  
Journal code: 0047103. ISSN: 1524-4571.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200108  
ENTRY DATE: Entered STN: 20010820  
Last Updated on STN: 20010903  
Entered Medline: 20010830

L2 ANSWER 34 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 19  
ACCESSION NUMBER: 2001:473895 BIOSIS  
DOCUMENT NUMBER: PREV200100473895  
TITLE: The electrophysiological characteristics of the mechanosensitive two-pore domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\* in dorsal root ganglion.  
AUTHOR(S): Lim, In Ja (1); Kim, Kyoung Tae (1); Bang, Hyowoon (1)  
CORPORATE SOURCE: (1) Department of Physiology, Chung-Ang University, College of Medicine, Chung-Ang: heeyun@cau.ac.kr South Korea  
SOURCE: Chung-Ang Journal of Medicine, (June, 2001) Vol. 26, No. 2,  
pp. 105-115. print.  
ISSN: 0253-6250.  
DOCUMENT TYPE: Article  
LANGUAGE: Korean  
SUMMARY LANGUAGE: English

L2 ANSWER 35 OF 73 MEDLINE  
ACCESSION NUMBER: 2001543584 MEDLINE  
DOCUMENT NUMBER: 21473899 PubMed ID: 11589988  
TITLE: A comparative study of three cranial sensory ganglia projecting into the oral cavity: in situ hybridization analyses of neurotrophin receptors and thermosensitive cation channels.  
AUTHOR: Matsumoto I; Emori Y; Ninomiya Y; Abe K  
CORPORATE SOURCE: Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, 1-1-1 Yayoi, Bunkyo-ku, 113-8657, Tokyo, Japan.  
SOURCE: BRAIN RESEARCH. MOLECULAR BRAIN

RESEARCH, (2001 Sep 30) 93 (2) 105-12.  
Journal code: 8908640. ISSN: 0169-328X.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200201  
ENTRY DATE: Entered STN: 20011010  
Last Updated on STN: 20020125  
Entered Medline: 20020107  
L2 ANSWER 36 OF 73 MEDLINE DUPLICATE 20  
ACCESSION NUMBER: 2001245400 MEDLINE  
DOCUMENT NUMBER: 21105923 PubMed ID: 11165377  
TITLE: Distribution analysis of human two pore domain \*\*\*potassium\*\*\* \*\*\*channels\*\*\* in tissues of the central nervous system and periphery.  
AUTHOR: Medhurst A D; Rennie G; Chapman C G; Meadows H; Duckworth M  
D; Kelsell R E; Gloger I I; Pangalos M N  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals,  
New Frontiers Science Park, Essex CM19 5AW, Harlow, UK.  
SOURCE: BRAIN RESEARCH. MOLECULAR BRAIN RESEARCH, (2001 Jan 31) 86 (1-2) 101-14.  
Journal code: 8908640. ISSN: 0169-328X.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010517  
Last Updated on STN: 20010517  
Entered Medline: 20010510

L2 ANSWER 37 OF 73 MEDLINE DUPLICATE 21  
ACCESSION NUMBER: 2001234321 MEDLINE  
DOCUMENT NUMBER: 21095653 PubMed ID: 11172753  
TITLE: The neuroprotective agent sipatrigine (BW619C89) potentially inhibits the human tandem pore-domain K(+) channels \*\*\*TREK\*\*\* -1 and TRAAK.  
AUTHOR: Meadows H J; Chapman C G; Duckworth D M; Kelsell R E;  
Murdock P R; Nasir S; Rennie G; Randall A D  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals,  
New Frontiers Science Park, Third Avenue, Harlow, Essex CM19 5AW, UK.. helen\_j\_meadows@sbphrd.com  
SOURCE: BRAIN RESEARCH, (2001 Feb 16) 892 (1) 94-101.  
Journal code: 0045503. ISSN: 0006-8993.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200105  
ENTRY DATE: Entered STN: 20010517  
Last Updated on STN: 20010517  
Entered Medline: 20010503

L2 ANSWER 38 OF 73 MEDLINE DUPLICATE 22  
ACCESSION NUMBER: 2001291138 MEDLINE  
DOCUMENT NUMBER: 21268449 PubMed ID: 11374070  
TITLE: Synergistic interaction and the role of C-terminus in the activation of TRAAK K+ channels by pressure, free fatty acids and alkali.  
AUTHOR: Kim Y; Bang H; Gnatenco C; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University of Health Sciences, Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064, USA.  
SOURCE: PFLUGERS ARCHIV. EUROPEAN JOURNAL OF PHYSIOLOGY, (2001 Apr) 442 (1) 64-72.  
Journal code: 0154720. ISSN: 0031-6768.  
PUB. COUNTRY: Germany: Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF302842  
ENTRY MONTH: 200111  
ENTRY DATE: Entered STN: 20011105  
Last Updated on STN: 20011105  
Entered Medline: 20011101

L2 ANSWER 39 OF 73 WPIDS (C) 2002 THOMSON DERWENT DUPLICATE 23  
ACCESSION NUMBER: 2000-549146 [50] WPIDS  
DOC. NO. NON-CPI: N2000-406246  
DOC. NO. CPI: C2000-163964  
TITLE: Novel nucleic acid encoding a \*\*\*TREK\*\*\* -1 \*\*\*potassium\*\*\* \*\*\*channel\*\*\* protein for transfecting cells to be used to identify compounds with anesthetic properties.  
DERWENT CLASS: B04 D16 S03  
INVENTOR(S): HONORE, E; LAZDUNSKI, M; LESAGE, F; PATEL, A J; ROMÉY, G  
PATENT ASSIGNEE(S): (CNRS) CNRS CENT NAT RECH SCI; (CNRS) CENT NAT RECH SCI  
COUNTRY COUNT: 90  
PATENT INFORMATION:

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PATENT NO KIND DATE WEEK LA PG  
WO 2000047738 A2 20000817 (200050)\* EN 26  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT  
KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG WZ  
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU  
CZ DE DK DM EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS  
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO  
RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
AU 2000026854 A 20000829 (200062)  
EP 1144624 A2 20011017 (200169) EN  
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL  
PT SE  
JP 2002536017 W 20021029 (200274) 45

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000047738 A2		WO 2000-IB226	20000211
AU 2000026854 A		AU 2000-26854	20000211
EP 1144624 A2		EP 2000-905230	20000211
		WO 2000-IB226	20000211
JP 2002536017 W		JP 2000-598636	20000211
		WO 2000-IB226	20000211

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000026854 A	Based on	WO 200047738
EP 1144624 A2	Based on	WO 200047738
JP 2002536017 W	Based on	WO 200047738

PRIORITY APPLN. INFO: US 2000-503089 20000211; US  
1999-119727P  
19990212

L2 ANSWER 40 OF 73 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:861503 CAPLUS  
DOCUMENT NUMBER: 134:25373  
TITLE: \*\*\*Potassium\*\*\* \*\*\*channel\*\*\* -related  
h-TREK1

polypeptides and polynucleotides for treatment of  
nervous system disorders

INVENTOR(S): Hervieu, Guillaume Jean; Meadows, Helen Jane;  
Randall,

PATENT ASSIGNEE(S): Smithkline Beecham PLC, UK  
SOURCE: PCT Int. Appl., 35 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000072863	A2	20001207	WO 2000-GB2107	20000601
WO 2000072863	A3	20010222		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1187627	A2	20020320	EP 2000-935374	20000601
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
PRIORITY APPLN. INFO.:	GB 1999-12733	A	19990601	
	WO 2000-GB2107	W	20000601	

L2 ANSWER 41 OF 73 MEDLINE DUPLICATE 24  
ACCESSION NUMBER: 2001105970 MEDLINE  
DOCUMENT NUMBER: 20564271 PubMed ID: 10993907  
TITLE: Simultaneous activation of p38 MAPK and p42/44 MAPK by ATP  
stimulates the K+ current ITREK in cardiomyocytes.  
AUTHOR: Aïmond F; Rauzier J M; Bony C; Vassort G  
CORPORATE SOURCE: INSERM U-390, Physiopathologie cardiovasculaire, IFR N  
degrées 3, CHU Aumad de Villeneuve, F-34295 Montpellier Cedex 5, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Dec 15) 275 (50)  
39110-6.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200102  
ENTRY DATE: Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20010208

L2 ANSWER 42 OF 73 MEDLINE  
ACCESSION NUMBER: 2000496079 MEDLINE  
DOCUMENT NUMBER: 20435789 PubMed ID: 10880510  
TITLE: Human TREK2, a 2P domain mechano-sensitive K+ channel with  
multiple regulations by polyunsaturated fatty acids, lysophospholipids, and Gs, Gi, and Gq protein-coupled receptors.  
AUTHOR: Lesage F; Terrenoire C; Romey G; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moléculaire et Cellulaire,  
CNRS-UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Sep 15) 275 (37)  
28398-405.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF279890  
ENTRY MONTH: 200010  
ENTRY DATE: Entered STN: 20001027  
Last Updated on STN: 20001027  
Entered Medline: 20001013

L2 ANSWER 43 OF 73 MEDLINE DUPLICATE 25  
ACCESSION NUMBER: 2000298807 MEDLINE  
DOCUMENT NUMBER: 20298807 PubMed ID: 10747911  
TITLE: \*\*\*TREK\*\*\* -2, a new member of the mechanosensitive  
tandem-pore K+ channel family.  
AUTHOR: Bang H; Kim Y; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University  
of Health Sciences/The Chicago Medical School, North Chicago, Illinois 60064, USA.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Jun 9) 275 (23)  
17412-9.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences  
OTHER SOURCE: GENBANK-AF196965  
ENTRY MONTH: 200007  
ENTRY DATE: Entered STN: 20000728  
Last Updated on STN: 20000728  
Entered Medline: 20000720

L2 ANSWER 44 OF 73 MEDLINE DUPLICATE 26  
ACCESSION NUMBER: 2000209381 MEDLINE  
DOCUMENT NUMBER: 20209381 PubMed ID: 10744694  
TITLE: Lysophospholipids open the two-pore domain mechano-gated  
K(+) channels \*\*\*TREK\*\*\* -1 and TRAAK.  
AUTHOR: Maignret F; Patel A J; Lesage F; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moléculaire et Cellulaire, CNRS  
UPR 411, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Apr 7) 275 (14)  
10128-33.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200005  
ENTRY DATE: Entered STN: 20000518  
Last Updated on STN: 20000518  
Entered Medline: 20000508

L2 ANSWER 45 OF 73 MEDLINE DUPLICATE 27  
ACCESSION NUMBER: 2000200422 MEDLINE  
DOCUMENT NUMBER: 20200422 PubMed ID: 10734076  
TITLE: TASK-3, a new member of the tandem pore K(+) channel family.  
AUTHOR: Kim Y; Bang H; Kim D  
CORPORATE SOURCE: Department of Physiology and Biophysics, Finch University  
of Health Sciences/The Chicago Medical School, North Chicago, Illinois 60064, USA.  
CONTRACT NUMBER: HL55363 (NHLBI)  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Mar 31) 275 (13)  
9340-7.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF192366

ENTRY MONTH: 200005  
ENTRY DATE: Entered STN: 20000512  
Last Updated on STN: 20000512  
Entered Medline: 20000504

L2 ANSWER 46 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 2000:779832 SCISEARCH  
THE GENUINE ARTICLE: 361ZC  
TITLE: Mutants of a temperature-sensitive two-P domain  
\*\*\*potassium\*\*\* \*\*\*channel\*\*\*  
AUTHOR: Kunkel M T; Johnstone D B; Thomas J H; Salkoff L (Reprint);  
CORPORATE SOURCE: WASHINGTON UNIV, SCH MED, DEPT ANAT & NEUROBIOL, 660 S  
EUCLID AVE, BOX 8108, ST LOUIS, MO 63110  
(Reprint);  
WASHINGTON UNIV, SCH MED, DEPT ANAT & NEUROBIOL, ST LOUIS,  
MO 63110; WASHINGTON UNIV, SCH MED, DEPT GENET, ST LOUIS,  
MO 63110; UNIV WASHINGTON, DEPT GENET, SEATTLE, WA 98195  
COUNTRY OF AUTHOR: USA  
SOURCE: JOURNAL OF NEUROSCIENCE, (15 OCT 2000) Vol. 20, No. 20,  
pp. 7517-7524.  
Publisher: SOC NEUROSCIENCE, 11 DUPONT CIRCLE,  
NW, STE  
500, WASHINGTON, DC 20036.  
ISSN: 0270-6474.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 37  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 47 OF 73 MEDLINE DUPLICATE 28  
ACCESSION NUMBER: 2000296674 MEDLINE  
DOCUMENT NUMBER: 20296674 PubMed ID: 10835347  
TITLE: \*\*\*TREK\*\*\* -1 is a heat-activated background K(+) channel.  
AUTHOR: Maignret F; Lauritzen I; Patel A J; Heurteaux C; Reyes R;  
Lesage F; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moléculaire et Cellulaire, CNRS  
UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.. ipmc@ipmc.cnrs.fr  
SOURCE: EMBO JOURNAL, (2000 Jun 1) 19 (11) 2483-91.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200007  
ENTRY DATE: Entered STN: 20000728  
Last Updated on STN: 20000728  
Entered Medline: 20000720

L2 ANSWER 48 OF 73 MEDLINE DUPLICATE 29  
ACCESSION NUMBER: 2000237615 MEDLINE  
DOCUMENT NUMBER: 20237615 PubMed ID: 10775263  
TITLE: Polyunsaturated fatty acids are potent neuroprotectors.  
AUTHOR: Lauritzen I; Blondeau N; Heurteaux C; Widmann C; Romey G;  
Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moléculaire et Cellulaire, CNRS  
UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: EMBO JOURNAL, (2000 Apr 17) 19 (8) 1784-93.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200006  
ENTRY DATE: Entered STN: 20000622  
Last Updated on STN: 20000622  
Entered Medline: 20000613

L2 ANSWER 49 OF 73 MEDLINE DUPLICATE 30  
ACCESSION NUMBER: 2000251453 MEDLINE  
DOCUMENT NUMBER: 20251453 PubMed ID: 10790857  
TITLE: Axonal transport of \*\*\*TREK\*\*\* and TRAAK  
\*\*\*potassium\*\*\* \*\*\*channels\*\*\* in rat sciatic nerves.  
AUTHOR: Bearzatto B; Lesage F; Reyes R; Lazdunski M; Laduron P M  
CORPORATE SOURCE: Laboratory of Neurophysiology, Université Libre de  
Bruxelles, Belgium.  
SOURCE: NEUROREPORT, (2000 Apr 7) 11 (5) 927-30.  
Journal code: 9100935. ISSN: 0959-4965.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200007  
ENTRY DATE: Entered STN: 20000720  
Last Updated on STN: 20000720  
Entered Medline: 20000710

L2 ANSWER 50 OF 73 MEDLINE DUPLICATE 31

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ACCESSION NUMBER: 2000242005 MEDLINE  
DOCUMENT NUMBER: 20242005 PubMed ID: 10779373  
TITLE: The neuroprotective agent riluzole activates the two P domain K(+) channels \*\*\*TREK\*\*\* -1 and TRAAK.  
AUTHOR: Duprat F; Lesage F; Patel A J; Fink M; Romey G; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, Centre National de la Recherche Scientifique, Valbonne, France.  
SOURCE: MOLECULAR PHARMACOLOGY, (2000 May) 57 (5) 906-12.  
Journal code: 0035623. ISSN: 0026-895X.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200005  
ENTRY DATE: Entered STN: 20000606  
Last Updated on STN: 20000606  
Entered Medline: 20000525

L2 ANSWER 51 OF 73 MEDLINE DUPLICATE 32  
ACCESSION NUMBER: 2001040741 MEDLINE  
DOCUMENT NUMBER: 20508366 PubMed ID: 11053038  
TITLE: Molecular and functional properties of two-pore-domain \*\*\*potassium\*\*\* \*\*\*channels\*\*\*  
AUTHOR: Lesage F; Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire, et Cellulaire, Centre National de la Recherche Scientifique-Unité Propre de Recherche 411, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY. RENAL PHYSIOLOGY, (2000 Nov) 279 (5) F793-801. Ref: 64  
Journal code: 100901990. ISSN: 0363-6127.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200012  
ENTRY DATE: Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20001207

L2 ANSWER 52 OF 73 MEDLINE DUPLICATE 33  
ACCESSION NUMBER: 2000244931 MEDLINE  
DOCUMENT NUMBER: 20244931 PubMed ID: 10784345  
TITLE: Cloning, localisation and functional expression of the human orthologue of the \*\*\*TREK\*\*\* -1  
\*\*\*potassium\*\*\*  
\*\*\*channel\*\*\*

AUTHOR: Meadows H J; Benham C D; Cairns W; Gloger I; Jennings C; Medhurst A D; Murdock P; Chapman C G  
CORPORATE SOURCE: Neuroscience Research, SmithKline Beecham Pharmaceuticals, Harlow, Essex, UK. Helen.J.Meadows@sbphrd.com  
SOURCE: PFLUGERS ARCHIV. EUROPEAN JOURNAL OF PHYSIOLOGY, (2000 Apr) 439 (6) 714-22.  
Journal code: 0154720. ISSN: 0031-6768.

PUB. COUNTRY: GERMANY: Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF171068  
ENTRY MONTH: 200006  
ENTRY DATE: Entered STN: 20000629  
Last Updated on STN: 20000629  
Entered Medline: 20000621

L2 ANSWER 53 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:178435 BIOSIS  
DOCUMENT NUMBER: PREV200000178435  
TITLE: \*\*\*TREK\*\*\* -2, a new member of the mammalian mechanosensitive K+ channel family.

AUTHOR(S): Bang, Hyowoon (1); Kim, Yangmi (1); Kim, Donghee (1)  
CORPORATE SOURCE: (1) Chicago Medical School, 3333 Green Bay Road, North Chicago, IL, 60064 USA  
SOURCE: Biophysical Journal, (Jan., 2000) Vol. 78, No. 1 Part 2, pp. 474A.  
Meeting Info.: 44th Annual Meeting of the Biophysical Society, New Orleans, Louisiana, USA February 12-16, 2000  
ISSN: 0006-3495.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 54 OF 73 MEDLINE DUPLICATE 34  
ACCESSION NUMBER: 2000488784 MEDLINE  
DOCUMENT NUMBER: 20492877 PubMed ID: 11039733  
TITLE: Localization of the tandem pore domain K+ channel TASK-1 in the rat central nervous system.

AUTHOR: Kindler C H; Pietruck C; Yost C S; Sampson E R; Gray A T  
CORPORATE SOURCE: Department of Anesthesia, University of Basel, Kantonsspital, Switzerland. ckindler@uhbs.ch  
CONTRACT NUMBER: GMS-51372 (NIGMS)

SOURCE: BRAIN RESEARCH. MOLECULAR BRAIN RESEARCH, (2000 Aug 14) 80 (1) 99-108.

Journal code: 8908640. ISSN: 0169-328X.

PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200103  
ENTRY DATE: Entered STN: 20010404  
Last Updated on STN: 20010404  
Entered Medline: 20010301

L2 ANSWER 55 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE

35  
ACCESSION NUMBER: 2000:353891 BIOSIS  
DOCUMENT NUMBER: PREV200000353891  
TITLE: Expression of \*\*\*TREK\*\*\* -1 \*\*\*potassium\*\*\* \*\*\*channel\*\*\* in GABA-containing neurons in the adult rat CNS.

AUTHOR(S): Cluderay, J. E. (1); Meadows, H. J. (1); Hervieu, G. (1)  
CORPORATE SOURCE: (1) Neuroscience Research, SB, Harlow, Essex UK  
SOURCE: European Journal of Neuroscience, (2000) Vol. 12, No. Supplement 11, pp. 23. print.  
Meeting Info.: Meeting of the Federation of European Neuroscience Societies Brighton, UK June 24-28, 2000  
ISSN: 0953-816X.

DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 56 OF 73 WPIDS (C) 2002 THOMSON DERWENT DUPLICATE 36  
ACCESSION NUMBER: 1999-469126 [39] WPIDS  
DOC. NO. NON-CPI: N1999-350285  
DOC. NO. CPI: C1999-137655  
TITLE: New two pore \*\*\*potassium\*\*\* \*\*\*channel\*\*\* used for, e.g. treatment of cancer, pulmonary, cardiovascular and inflammatory diseases.

DERWENT CLASS: B04 D16 S03  
INVENTOR(S): CHAPMAN, C G; MEADOWS, H J  
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM PLC; (CHAP-I) CHAPMAN C G; (MEAD-I) MEADOWS H J  
COUNTRY COUNT: 21  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9937762	A1	19990729 (199939)*	EN	26	
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: JP					
EP 1051485	A1	20001115 (200059)	EN		
R: BE CH DE DK FR GB IT LI NL					
US 6242217	B1	20010605 (200133)			
US 2002028485	A1	20020307 (200221)			
JP 2002511233	W	20020416 (200242)		52	

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9937762	A1	WO 1998-EP7805	19981202
EP 1051485	A1	EP 1998-962402	19981202
WO 1998-EP7805 19981202			
US 6242217	B1	US 1999-236080	19990125
US 2002028485	A1 Div ex	US 1999-236080	19990125
US 2001-828746 20010409			
JP 2002511233	W	WO 1998-EP7805	19981202
JP 2000-528670 19981202			

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1051485	A1 Based on	WO 9937762
US 2002028485	A1 Div ex	US 6242217
JP 2002511233	W Based on	WO 9937762

PRIORITY APPLN. INFO: GB 1998-22135 19981009; EP 1998-300570 19980127

L2 ANSWER 57 OF 73 WPIDS (C) 2002 THOMSON DERWENT  
ACCESSION NUMBER: 1999-551038 [46] WPIDS  
DOC. NO. NON-CPI: N1999-407763  
DOC. NO. CPI: C1999-160733  
TITLE: New mechanically sensitive \*\*\*potassium\*\*\* \*\*\*channel\*\*\*, used to screen for specific modulators, potential therapeutic agents for heart and nervous system disorders.

DERWENT CLASS: B04 D16 S03  
INVENTOR(S): DUPRAT, F; FINK, M; HONORE, E; LAZDUNSKI, M; LESAGE, F  
PATENT ASSIGNEE(S): (CNRS) CNRS CENT NAT RECH SCI  
COUNTRY COUNT: 21  
PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

WO 9945108 A2 19990910 (199946)\* FR 40  
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
W: CA JP US  
FR 2775688 A1 19990910 (199946)  
EP 1058726 A2 20001213 (200066) FR  
R: DE ES FR GB IT  
JP 2002505102 W 20020219 (200216) 41

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9945108	A2	WO 1999-FR404	19990223
FR 2775688	A1	FR 1998-2725	19980305
EP 1058726	A2	EP 1999-904937	19990223
WO 1999-FR404 19990223			
JP 2002505102	W	WO 1999-FR404	19990223
JP 2000-534640 19990223			

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1058726	A2 Based on	WO 9945108
JP 2002505102	W Based on	WO 9945108

PRIORITY APPLN. INFO: FR 1998-2725 19980305

L2 ANSWER 58 OF 73 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1999:566066 CAPLUS  
DOCUMENT NUMBER: 131:168355  
TITLE: Identification of human genes for K+Hnov \*\*\*potassium\*\*\* \*\*\*channels\*\*\* by gene discovery methods and their investigative, diagnostic, and therapeutic uses  
INVENTOR(S): Miller, Andrew P.; Curran, Mark Edward; Hu, Ping; Rutter, Marc; Wang, Jian-ying  
PATENT ASSIGNEE(S): Axys Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 112 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9943696	A1	19990902	WO 1999-US3826	19990222
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2321194	AA	19990902	CA 1999-2321194	19990222
AU 9927809	A1	19990915	AU 1999-27809	19990222
AU 747846	B2	20020523		
EP 1056765	A1	20001206	EP 1999-908356	19990222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6399761	B1	20020604	US 1999-336643	19990618
PRIORITY APPLN. INFO.: US 1998-766877 P 19980225				
US 1998-95836P P 19980807				
US 1999-116448P P 19990119				
WO 1999-US3826 W 19990222				

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES  
AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 59 OF 73 MEDLINE DUPLICATE 37  
ACCESSION NUMBER: 1999410397 MEDLINE  
DOCUMENT NUMBER: 99410397 PubMed ID: 10480871  
TITLE: Mechano- or acid stimulation, two interactive modes of activation of the \*\*\*TREK\*\*\* -1 \*\*\*potassium\*\*\* \*\*\*channel\*\*\*  
AUTHOR: Maingret F; Patel A J; Lesage F; Lazdunski M; Honore E  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.  
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Sep 17) 274 (38) 26691-6.  
Journal code: 2985121R. ISSN: 0021-9258.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences

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ENTRY MONTH: 199910  
ENTRY DATE: Entered STN: 19991026  
Last Updated on STN: 19991026  
Entered Medline: 19991013

L2 ANSWER 60 OF 73 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2000:137222 BIOSIS  
DOCUMENT NUMBER: PREV200000137222  
TITLE: Cloning, localisation and functional expression of a novel human 2P domain \*\*\*potassium\*\*\* \*\*\*channel\*\*\*

AUTHOR(S): Meadows, H. J. (1); Chapman, C. G.; Jennings, C. (1); Hervieu, G. (1); Cluderay, J. (1); Randall, A. R. (1); Gloger, I. S.; Benham, C. D. (1)

CORPORATE SOURCE: (1) Neuroscience, SmithKline Beecham Pharmaceuticals, Third Avenue, New Frontiers Science Park North, Harlow, Essex, CM19 5AW UK

SOURCE: Society for Neuroscience Abstracts., (1999) Vol. 25, No.

1-2, pp. 2248.  
Meeting Info.: 29th Annual Meeting of the Society for Neuroscience. Miami Beach, Florida, USA October 23-28, 1999

Society for Neuroscience  
ISSN: 0190-5295.  
DOCUMENT TYPE: Conference  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L2 ANSWER 61 OF 73 MEDLINE DUPLICATE 38

ACCESSION NUMBER: 1999098876 MEDLINE  
DOCUMENT NUMBER: 99098876 PubMed ID: 9880510  
TITLE: TRAAK is a mammalian neuronal mechano-gated K+ channel.

AUTHOR: Maingret F; Fosset M; Lesage F; Lazdunski M; Honore E

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire,

CNRS-UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Jan 15) 274 (3)

1381-7.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; Space Life Sciences  
ENTRY MONTH: 199902  
ENTRY DATE: Entered STN: 19990223  
Last Updated on STN: 19990223  
Entered Medline: 19990211

L2 ANSWER 62 OF 73 MEDLINE DUPLICATE 39

ACCESSION NUMBER: 1999215865 MEDLINE  
DOCUMENT NUMBER: 99215865 PubMed ID: 10201682  
TITLE: Local anesthetic inhibition of baseline \*\*\*potassium\*\*\* \*\*\*channels\*\*\* with two pore domains in tandem.

AUTHOR: Kindler C H; Yost C S; Gray A T

CORPORATE SOURCE: Department of Anesthesia, University of California, San

Francisco 94143-0542, USA.

CONTRACT NUMBER: GMS-51372 (NIGMS)  
SOURCE: ANESTHESIOLOGY, (1999 Apr) 90 (4) 1092-102.

Journal code: 1300217. ISSN: 0003-3022.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 199904  
ENTRY DATE: Entered STN: 19990504  
Last Updated on STN: 19990504  
Entered Medline: 19990421

L2 ANSWER 63 OF 73 MEDLINE DUPLICATE 40

ACCESSION NUMBER: 1999254548 MEDLINE  
DOCUMENT NUMBER: 99254548 PubMed ID: 10321245  
TITLE: Inhalational anesthetics activate two-pore-domain background K+ channels.

AUTHOR: Patel A J; Honore E; Lesage F; Fink M; Romey G; Lazdunski M

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire-CNRS-UPR 411, Valbonne, France.

SOURCE: NATURE NEUROSCIENCE, (1999 May) 2 (5) 422-6.

Journal code: 9809671. ISSN: 1097-6256.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199905  
ENTRY DATE: Entered STN: 19990607  
Last Updated on STN: 19990607  
Entered Medline: 19990525

L2 ANSWER 64 OF 73 MEDLINE DUPLICATE 41

ACCESSION NUMBER: 1999103971 MEDLINE  
DOCUMENT NUMBER: 99103971 PubMed ID: 9887061  
TITLE: Potential identification of the O2-sensitive K+ current in a human neuroepithelial body-derived cell line.

AUTHOR: O'Kelly I; Stephens R H; Peers C; Kemp P J

CORPORATE SOURCE: School of Biomedical Sciences, University of Leeds, Leeds

LS2 9JT, United Kingdom.  
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY, (1999 Jan) 276 (1 Pt 1)  
L96-L104.  
Journal code: 0370511. ISSN: 0002-9513.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199903  
ENTRY DATE: Entered STN: 19990324  
Last Updated on STN: 19990324  
Entered Medline: 19990309

L2 ANSWER 65 OF 73 SCISEARCH COPYRIGHT 2002 ISI (R)

ACCESSION NUMBER: 1999:85877 SCISEARCH  
THE GENUINE ARTICLE: 158ED  
TITLE: Potential identification of the O2-sensitive K+ current in a human neuroepithelial body-derived cell line

AUTHOR: O'Kelly I; Stephens R H; Peers C; Kemp P J (Reprint)

CORPORATE SOURCE: UNIV LEEDS, SCH BIOMED SCI, WORSLEY MED & DENT BLDG, LEEDS

LS2 9JT, W YORKSHIRE, ENGLAND (Reprint); UNIV

LEEDS, SCH BIOMED SCI, LEEDS LS2 9JT, W YORKSHIRE, ENGLAND; UNIV

LEEDS, INST CARDIOVASC RES, LEEDS LS2 9JT, W YORKSHIRE, ENGLAND

COUNTRY OF AUTHOR: ENGLAND  
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-LUNG CELLULAR AND MOLECULAR

PHYSIOLOGY, (JAN 1999) Vol. 20, No. 1, pp. L96-L104.  
Publisher: AMER PHYSIOLOGICAL SOC, 9650

ROCKVILLE PIKE,

BETHESDA, MD 20814.

ISSN: 1040-0605.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: English

REFERENCE COUNT: 25

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L2 ANSWER 66 OF 73 MEDLINE DUPLICATE 42

ACCESSION NUMBER: 1999030343 MEDLINE  
DOCUMENT NUMBER: 99030343 PubMed ID: 9812978  
TITLE: Cloning and expression of a novel pH-sensitive two pore domain K+ channel from human kidney.

AUTHOR: Reyes R; Duprat F; Lesage F; Fink M; Salinas M; Farman N;

Lazdunski M

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire,

CNRS-UPR 411, 660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Nov 20) 273 (47)

30863-9.  
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF084830  
ENTRY MONTH: 199812  
ENTRY DATE: Entered STN: 19990115  
Last Updated on STN: 19990115  
Entered Medline: 19981221

L2 ANSWER 67 OF 73 MEDLINE DUPLICATE 43

ACCESSION NUMBER: 1998353454 MEDLINE  
DOCUMENT NUMBER: 98353454 PubMed ID: 9687497  
TITLE: A mammalian two pore domain mechano-gated S-like K+ channel.

AUTHOR: Patel A J; Honore E; Maingret F; Lesage F; Fink M; Duprat

F; Lazdunski M

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS,

Valbonne, France.

SOURCE: EMBO JOURNAL, (1998 Aug 3) 17 (15) 4283-90.

Journal code: 8208664. ISSN: 0261-4189.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199809  
ENTRY DATE: Entered STN: 19981006  
Last Updated on STN: 19981006  
Entered Medline: 19980922

L2 ANSWER 68 OF 73 MEDLINE DUPLICATE 44

ACCESSION NUMBER: 1998292450 MEDLINE  
DOCUMENT NUMBER: 98292450 PubMed ID: 9628867  
TITLE: A neuronal two P domain K+ channel stimulated by arachidonic acid and polyunsaturated fatty acids.

AUTHOR: Fink M; Lesage F; Duprat F; Heurteaux C; Reyes R; Fosset M;

Lazdunski M

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire-CNRS-UPR 411, Valbonne, France.

SOURCE: EMBO JOURNAL, (1998 Jun 15) 17 (12) 3297-308.  
Journal code: 8208664. ISSN: 0261-4189.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF056492  
ENTRY MONTH: 199807  
ENTRY DATE: Entered STN: 19980811  
Last Updated on STN: 20000303  
Entered Medline: 19980730

L2 ANSWER 69 OF 73 MEDLINE DUPLICATE 45

ACCESSION NUMBER: 1998099797 MEDLINE  
DOCUMENT NUMBER: 98099797 PubMed ID: 9437008  
TITLE: An open rectifier \*\*\*potassium\*\*\* \*\*\*channel\*\*\* with two pore domains in tandem cloned from rat cerebellum.

AUTHOR: Leonoudakis D; Gray A T; Winegar B D; Kindler C H; Harada

M; Taylor D M; Chavez R A; Forsayeth J R; Yost C S

CORPORATE SOURCE: Department of Anesthesia, University of California San

Francisco, San Francisco, California 94143-0542, USA.  
CONTRACT NUMBER: GM-08440 (NIGMS)

GMS-51372 (NIGMS)  
SOURCE: JOURNAL OF NEUROSCIENCE, (1998 Feb 1) 18 (3) 868-77.

Journal code: 8102140. ISSN: 0270-6474.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF031384  
ENTRY MONTH: 199802  
ENTRY DATE: Entered STN: 19980224  
Last Updated on STN: 20000303  
Entered Medline: 19980206

L2 ANSWER 70 OF 73 MEDLINE DUPLICATE 46

ACCESSION NUMBER: 1998165556 MEDLINE  
DOCUMENT NUMBER: 98165556 PubMed ID: 9506712  
TITLE: Cloning and functional expression of a novel cardiac two-pore background K+ channel (cTBK-1).

AUTHOR: Kim D; Fujita A; Horio Y; Kurachi Y

CORPORATE SOURCE: Department of Pharmacology II, Faculty of Medicine, Osaka

University, Suita, Japan.  
SOURCE: CIRCULATION RESEARCH, (1998 Mar 9) 82 (4) 513-8.

Journal code: 0047103. ISSN: 0009-7330.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AB008537  
ENTRY MONTH: 199803  
ENTRY DATE: Entered STN: 19980410  
Last Updated on STN: 19980410  
Entered Medline: 19980327

L2 ANSWER 71 OF 73 MEDLINE DUPLICATE 47

ACCESSION NUMBER: 1998389638 MEDLINE  
DOCUMENT NUMBER: 98389638 PubMed ID: 9721223  
TITLE: Mapping of human \*\*\*potassium\*\*\* \*\*\*channel\*\*\* genes \*\*\*TREK\*\*\* -1 (KCNK2) and TASK (KCNK3) to chromosomes 1q41 and 2p23.

AUTHOR: Lesage F; Lazdunski M

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS,

Valbonne, 660 route des Lucioles, Sophia Antipolis, 06560, France.

SOURCE: GENOMICS, (1998 Aug 1) 51 (3) 478-9.

Journal code: 8800135. ISSN: 0888-7543.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF006823  
ENTRY MONTH: 199810  
ENTRY DATE: Entered STN: 19981020  
Last Updated on STN: 19981020  
Entered Medline: 19981005

L2 ANSWER 72 OF 73 MEDLINE DUPLICATE 48

ACCESSION NUMBER: 97459932 MEDLINE  
DOCUMENT NUMBER: 97459932 PubMed ID: 9312005  
TITLE: TASK, a human background K+ channel to sense external pH variations near physiological pH.

AUTHOR: Duprat F; Lesage F; Fink M; Reyes R; Heurteaux C; Lazdunski

M

CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et Cellulaire, CNRS,

660 route des Lucioles, Sophia Antipolis, 06560 Valbonne, France.

SOURCE: EMBO JOURNAL, (1997 Sep 1) 16 (17) 5464-71.  
Journal code: 8208664. ISSN: 0261-4189.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-AF006823; GENBANK-AF006824  
ENTRY MONTH: 199712  
ENTRY DATE: Entered STN: 19980109  
Last Updated on STN: 19980109

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Entered Medline: 19971215

L2 ANSWER 73 OF 73 MEDLINE DUPLICATE 49  
ACCESSION NUMBER: 97157476 MEDLINE  
DOCUMENT NUMBER: 97157476 PubMed ID: 9003761  
TITLE: Cloning, functional expression and brain localization of a  
novel unconventional outward rectifier K<sup>+</sup> channel.  
AUTHOR: Fink M; Duprat F; Lesage F; Reyes R; Romey G;  
Heurteaux C;  
Lazdunski M  
CORPORATE SOURCE: Institut de Pharmacologie Moleculaire et  
Cellulaire, CNRS,  
Valbonne, France.  
SOURCE: EMBO JOURNAL, (1996 Dec 16) 15 (24) 6854-62.  
Journal code: 8208664. ISSN: 0261-4189.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-U73488  
ENTRY MONTH: 199702  
ENTRY DATE: Entered STN: 19970227  
Last Updated on STN: 19980206  
Entered Medline: 19970213

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OM nucleic - nucleic search, using sw model

Run on: September 21, 2002, 05:44:09 ; Search time 3779.57 seconds  
(without alignments)  
11433.390 Million cell updates/sec

Title: US-09-729-920-1  
Perfect score: 2065  
Sequence: 1 ggacactgacatggactgaa.....tacttgagagagaaactaa 2065

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 1797656 seqs, 10463268293 residues

Total number of hits satisfying chosen parameters: 3595312

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

GenEmbl.\*

- 1: gb\_ba.\*
- 2: gb\_hgt.\*
- 3: gb\_in.\*
- 4: gb\_om.\*
- 5: gb\_ov.\*
- 6: gb\_pat.\*
- 7: gb\_ph.\*
- 8: gb\_pl.\*
- 9: gb\_pr.\*
- 10: gb\_ro.\*
- 11: gb\_sts.\*
- 12: gb\_sy.\*
- 13: gb\_un.\*
- 14: gb\_vi.\*
- 15: em\_ba.\*
- 16: em\_fun.\*
- 17: em\_hum.\*
- 18: em\_in.\*
- 19: em\_mu.\*
- 20: em\_om.\*
- 21: em\_or.\*
- 22: em\_ov.\*
- 23: em\_pat.\*
- 24: em\_ph.\*
- 25: em\_pl.\*
- 26: em\_ro.\*
- 27: em\_sts.\*
- 28: em\_un.\*
- 29: em\_vi.\*
- 30: em\_htg\_hum.\*
- 31: em\_htg\_inv.\*
- 32: em\_htg\_other.\*
- 33: em\_htgo\_inv.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query	Score	Match	Length	DB	ID	Description
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1	1630.4	79.0	1632	6	AX319989	Sequence
2	1579.4	76.5	2730	9	AF279890	Homo sapi
3	1382.8	67.0	1854	10	AF196965	Rattus no
4	621.4	30.1	110939	9	CNS01DSW	Human chr
5	621.4	30.1	191090	2	AF000927	Homo sapi
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7	476	23.7	3187	10	AF325671	Rattus no
8	469.6	22.7	3580	10	MMU73488	Mus musculus
9	468.2	22.7	1236	6	AF129399	Homo sapi
10	468.2	22.7	1246	6	AF156458	Sequence
11	468.2	22.7	1246	6	AX003047	Sequence
12	468.2	22.7	1246	6	AX054800	Sequence
13	468.2	22.7	1252	9	AF171068	Homo sapi
14	468	22.7	1993	6	AX018706	Sequence
15	468	22.7	1994	6	AF156460	Sequence
16	468	22.7	1994	6	AX003051	Sequence
17	458.6	22.2	2130	6	AX224564	Sequence
18	458.6	22.2	2130	6	AX224579	Sequence
19	457.6	22.2	2106	9	AF004711	Homo sapi
20	457	22.1	2130	6	AX224580	Sequence
21	457	22.1	2130	6	AX224582	Sequence
22	455.4	22.1	2130	6	AX224581	Sequence
23	455	22.0	173394	9	CNS00001	Human chr
24	455	22.0	191090	2	AF000927	Homo sapi
25	279.2	13.5	1257	6	AX278168	Sequence
26	279.2	13.5	1408	6	AX278166	Sequence
27	279.2	13.5	1544	9	AF248242	Homo sapi
28	279.2	13.5	1730	9	AF259500	Homo sapi
29	279.2	13.5	2747	9	AF259501	Homo sapi
30	279.2	13.5	2772	9	AF247042	Homo sapi
31	276.8	13.4	1182	6	AX250709	Sequence
32	250.8	12.1	1794	6	AX018705	Sequence
33	250.8	12.1	1795	10	AF056492	Mus muscu
34	243.4	11.8	1194	10	AF302842	Rattus no
35	195.4	9.5	65346	2	AC026597	Homo sapi
36	190.4	9.2	635	6	AX319968	Sequence
37	181	8.8	321	6	AF156459	Sequence
38	181	8.8	321	6	AX003049	Sequence
39	179.4	8.7	65346	2	AC026597	Homo sapi
40	161.4	7.8	442	6	AX319963	Sequence
41	161.4	7.8	630	6	AX319956	Sequence
42	150	7.3	3467	9	HSB801119	Sequence
43	140.2	6.8	1497	6	AX135130	Sequence
44	140.2	6.8	3452	6	AX135128	Sequence
45	140.2	6.8	3514	9	AF084830	Homo sapi

ALIGNMENTS

RESULT	1	AX319989	Sequence 34 from Patent WO0185788.	1632 bp	DNA	linear	PAT 14-DEC-2001
LOCUS	AX319989	Sequence 34 from Patent WO0185788.					
DEFINITION	AX319989	Sequence 34 from Patent WO0185788.					
ACCESSION	AX319989	Sequence 34 from Patent WO0185788.					
VERSION	AX319989.1	GI:17901533					
KEYWORDS	human.						
SOURCE	human.						
ORGANISM	Homo sapiens						
REFERENCE	1 (sites)						
AUTHORS	Roberts, S. L., Benjamin, C. W., Karnovsky, A. M. and Ruble, C. L.						
TITLE	Human ion channels						
JOURNAL	PHARMACIA & UPJOHN COMPANY (US)						
FEATURES	Location/Qualifiers						
source	1. 1632						
BASE COUNT	405 a	423 c	463 g	341 t			
ORIGIN							

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Qy	1514	cgaggctcagcgtgagatccacgataaagctgcagcggcgccacacatccgcagcatg	1573
Db	1081	CGAAGGCTCAGCGTGGAGATCCAGATTAAGTGCAGCGGGCGGCCACCATCCGAGCATG	1140
Qy	1574	gagcggcgcgctgggctggacagcgggcccactcactctggacatgctgtcccccgag	1633
Db	1141	GAGCGCGCGCGCTGGCGCTGGACGACGGGCCACCTCACCTGGAGCATGCTCTCCCCGAG	1200
Qy	1634	aagcgtctgtcttgccttgacccagcggcggcgttcgaaggcctcatccccagagagc	1693
Db	1201	AAGCGCTGTGCTTTGTGCTGCGCTGGACACCGCGCGCTTCAAGGGCTCATCCAGGAGAGC	1260
Qy	1694	atcaaacacggcccaacaacactgcgctgaaggcgccgagcggagcagctgaacaaagctggg	1753
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Qy	1814	agggaaacaggacacctcaaaaagaccttgcccagagacgttcagaaatctcaagacc	1873
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Qy	1874	ttcggaaattactccctggacagagagaagaagaggaggaacggaagaagatgtgaac	1933
Db	1441	TTCCGGGAATTACTCCCTGGAGGAGAGAAAGAGGAGGAGACGGAAAGATGTGTAAAC	1500
Qy	1934	tcagacaactccagcagcagcatgctgacgactgtatccagcagcagcgtgagttggag	1993
Db	1501	TCAGACAACCTCCAGCAGACCATGCTGACGACATGTATCCAGAGCAGCGCTGAGTTGGAG	1560
Qy	1994	aacggaatgatataccacgggacaccaaagacgggagccggagcggagagaacatctactgaa	2053
Db	1561	AACGGAATGATACCCACGACGACCAACAAAGCCGGAGCGCGGAGAACTCATTTACTTGA	1620
Qy	2054	gacgaaactaa 2065	
Db	1621	GACAGAAACTAA 1632	
RESULT	2		
AF279890			
LOCUS		2730 bp mRNA linear PRI 20-SEP-2000	
DEFINITION		Homo sapiens 2P domain potassium channel TREK2 (KCNK10) mRNA, complete cds.	
ACCESSION		AF279890	
VERSION		AF279890.1 GI:10198114	
KEYWORDS			
SOURCE		human.	
ORGANISM		Homo sapiens	
REFERENCE		Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.	
AUTHORS		1 (bases 1 to 2730)	
TITLE		Lesage,F., Terrenoire,C., Romey,G. and Lazdunski,M.	
JOURNAL		Human TRBK2, a 2P domain mechano-sensitive K+ channel with multiple regulations by polyunsaturated fatty acids, lysophospholipids, and gs, gi, and Gq protein-coupled receptors	
MEDLINE		J. Biol. Chem. 275 (37), 28398-28405 (2000)	
REFERENCE		20435789	
AUTHORS		2 (bases 1 to 2730)	
TITLE		Lesage,F.	
JOURNAL		Submitted (20-JUN-2000) IPMC, CNRS, 660 Route des Lucioles, Valbonne 06560, France	
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Best Local Similarity 99.9%; Pred. No. 0;
Matches 1580; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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DB 509 GTGGCGGTTCGCGCAGCAGCAGCGGTGTCCAGCCCAAGAGCGGCACCTAAACGGGCAACCC 568

QY 545 ccggctccggtccgactcccaactccgctgctgcatttctccagccacacagtgtga 604
DB 569 CCGGCTCCGGCTCCGACACCTCAACTCCGGCGCTGCTCCATTCCTCCGAGCCACAGTGGTA 628

QY 605 gccaggaaggagcgcaccccaagggggttgcagacgcgtcatgaagtggaaagcagtg 664
DB 629 GCCAGGATGGAAGGCACCTCCCAAGGGGCTTGACAGCCGTGCATGAAGTGAAGACGGTG 688

QY 665 gtggcatttgggtgtggtgtgtacattgtcaactggcgggtctgttcttccgggca 724
DB 689 GTGGCATCTTTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 748

QY 725 ttggagcagcccttgagagcagcagcagaaataaccatcgcttgagaaagcgaattc 784
DB 749 TTGGAGACGCCCTTTGAGAGCAGCAGCAGAAATACCATCGCTTGAGAAAGCGGAATTC 808

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DB 869 GATGTGCAATTCGGGAGTCACTCAATAGAAAACCTTCCAAACACAGACGCCACTGG 928

QY 905 gacctcggcagtgcttttcttctggaactgtcattacgacctagggtatgggaat 964
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QY 965 attgtccgagcactgaaggaggcaaatctttgtatttatatgcccatttttgggaat 1024
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QY 1025 caactcttgggttatttattgctggaattggagacccaacttggaaacacatctttgggaa 1084
DB 1049 CCACCTCTTTGGTCTTATTGCTCGGAATTCGAGACCAACTTGAACCATCTTTGGGAAA 1108

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QY 1145 gtcatctcaaccatcgttcatcttggcggctgctgattgtgtgtgacgatccctgct 1204
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QY 1505 gagcacggcgaaggctcagcgtggagatccacgataagctgacggcggcggccaccatc 1564
DB 1529 GAGACACGGCGAAGGCTCAGCGTGGAGATCCACGATAAGCTGCAGCGGGCGCCACCATC 1588
QY 1565 cgcagcatggagcggcggcggcggcggcggcggcggcggcggcggcggcggcggcggcggc 1624
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DB 1829 CTCACCAAGAGGAAAAACAAGACCTCAAAAAGACCTTGCCCGAGGACGTTTCAGAAAAATC 1888
QY 1865 tacaagaccttccggaattactccctcgtcagcaggaagaaagagagagagagagagagag 1924
DB 1889 TACAAGACCTTCCCGAATTTACTCTCCGACGAGGAGAAAGAGAGAGAGAGAGAGAGAGAG 1948
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QY 1985 gagttggagacgggaatgatacccccgcgcacacacacacacacacacacacacacacac 2044
DB 2009 GAGTTGGAGAGCGGAATGATACCCACGAGACACCAAGACCGGAGCGCGGAGAGCAACTCA 2068
QY 2045 ttacttgaagacagaactaa 2065
DB 2069 TTACTTTGAAGACAGAAACTAA 2089
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RESULT 3

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DEFINITION Rattus norvegicus potassium channel TREK-2 mRNA, complete cds.
ACCESSION AF196965
VERSION AF196965.1 GI:8452899
KEYWORDS SOURCE
ORGANISM Norway rat.
Rattus norvegicus
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;  
Rattus.

REFERENCE  
AUTHORS  
TITLE  
JOURNAL  
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AUTHORS  
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Submitted (20-Oct-1999) Physiology and Biophysics, Finch University  
of Health Sciences/The Chicago Medical School, 3333 Green Bay Road,  
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BASE COUNT 485 a 448 c 478 g 443 t

ORIGIN

Query Match 67.0%; Score 1382.8; DB 10; Length 1854;  
Best Local Similarity 87.7%; Pred. No. 9.2e-309;  
Matches 1587; Conservative 0; Mismatches 197; Indels 26; Gaps 6;

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QY 323 cccatctcggaattgtttgtgactgtctaaacgagcg-tgtaaagcttgagac 381  
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QY 382 ttattat--ttattgggttcttttcttcttccctctctgggcaacgaagcaatgaa 438  
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Db 764 TTTCTTATTGCTGGAATTGGAGCAACCTTGAACCATCTTTGGCAAAAGCATTTGCAAG 823  
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QY 1096 agtgagaaaggtcttttcgaaaaagcaagtgtgacagaccaagatccgggtctacttcaac 1155  
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Db 824 AGTGGAAAAGSTTTTCGAAAAAAGCAAGTGTGTCAGCAAGATCCGGGTCTATCTCAAC 883  
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QY 1156 cactcgttcatcttggccggctgcatgtgtttgtgacatccctcgtcgtctatctttaa 1215  
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Db 884 TATTCTTTTTCATCTTGGCTGGCTGCACTGCTGTTGTGACGATCCCTGCTGCTATCTTTAA 943  
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QY 1216 gtacatcagggctgacggccttgagtcacatttacttctgtgtgctactctgacac 1275  
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Db 944 ATACATAGAGGCTTGGACCCCTTGGAGTCCATCTACTTTGTGTAGTCACTCTGACAC 1003  
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

QY 1276 ggtgggcttggtagtttggcagggggaacgcgtggcatcaattatccggagtggtta 1335  
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Db 1004 AGTGGGCTTTGGTGATTTTGTGCGAGGGGAAATGCTGGCATCAATACCGAGAATGGTA 1063  
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QY 1336 taagccctcagtggttggatccttggccttggccttgcctacttttcagcgtcctcag 1395  
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Db 1064 CAAGCCGCTGGTGTGGTGTGGATCTTGTGGCTTGGCTTGGCTTGGCTTGGCTTGGCTTGG 1123  
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QY 1396 tatgacggagattggctacgggtctctgcaaaaagcaaaaagagaggtgggtgaaat 1455  
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Db 1124 TATGATTGGAGACTGGCTGGAGTATTTATCCAAAAGACAAAAGAGAGGTGGTGAGAT 1183  
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QY 1456 caaggcccatgycggcagagtggaagggcaatgtcaaggctgagttccgggagacacggcg 1515  
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Db 1184 CAAAGCCCATGAGTGAATGGAAGGCTAATGTCACTGCTGAGTTCGGGGAGAGAGACG 1243  
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QY 1516 aaggtcagcgtgagatccacataaagctgacggggcgccaccatccgacatcgga 1575  
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Db 1304 GCGCCGAGACTGGGATTGGACAGAGGGCCCATCACTCACTGGACATGCTTTCCCGGAGAA 1363  
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QY 1636 ggcctctgttcttgccttggaacccggcgcttcaaggctcattccaggagagcat 1695  
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Db 1364 GCGCTCTGCTTTTGCAGCCCTGGACACAGGCCGCTTTCAAGGCCCTCATCCGAGGAGATAT 1423  
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QY 1696 caacaacggcccaacaacctgcctgaaggcgagcagcagcagcagcagcagcagcagcagcag 1755  
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Db 1424 CAACAACAGACCCCAATAACCTACGCCCTTAAGGGGCCAGAACAGCTCAACAAACACGGGCA 1483  
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QY 1756 ggtggtcgcgaggaacaacatcatcaacaagttcggtccacctccagactccacaaagag 1815  
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Db 1484 GGGCGCTTCTTGAGGACAAACATCATCAACAAGTTTGGGTCCACCTCCAAACATCAACAAGAG 1543  
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Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555,  
Japan (E-mail:hattori@qsc.riken.go.jp,  
URL:http://hqp.qsc.riken.go.jp/, Tel:81-42-778-9923,  
Fax:81-42-778-9924).  
On May 31, 2000 this sequence version replaced gi:6997743.

## COMMENT

----- Genome Center  
Center: RIKEN Genomic Sciences Center(GSC)

Center code: RIKEN

Web site: http://hqp.qsc.riken.go.jp/

Contact: hattori@qsc.riken.go.jp

----- Project Information

Center project name: Humdraft18

Center clone name: RP11-77108

----- Summary Statistics

Sequencing vector: PCR products; 100% of reads

Chemistry: Dye-terminator Em-amersham; 100% of reads

Assembly program: Phrap; version 0.990329

Consensus quality: 175036 bases at least Q40

Consensus quality: 182626 bases at least Q30

Consensus quality: 186234 bases at least Q20

Insert size: 188790; sum-of-contigs

Quality coverage: 4.68x in Q20 bases; sum-of-contigs

----- NOTE: This is a 'working draft' sequence. It currently consists of 24 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved

```

1      26584 contig of 26584 bp in length
26685 48988 contig of 22304 bp in length
49089 64798 contig of 15710 bp in length
64899 80877 contig of 15979 bp in length
80978 94387 contig of 13410 bp in length
94488 108131 contig of 13644 bp in length
108232 115507 contig of 7276 bp in length
115608 125425 contig of 9818 bp in length
125526 136206 contig of 10681 bp in length
136307 144932 contig of 100 bp
145033 152815 contig of 8626 bp in length
152916 157958 contig of 2373 bp in length
157958 162888 contig of 3520 bp in length
162888 169526 contig of 4931 bp in length
169526 172774 contig of 3538 bp in length
172774 176556 contig of 2528 bp in length
176556 179663 contig of 3682 bp in length
179663 182626 contig of 3007 bp in length
182626 185492 contig of 2373 bp in length
185492 187965 contig of 100 bp
187965 189461 contig of 1396 bp in length
189461 191090 contig of 1529 bp in length
191090 19562 contig of 1529 bp in length

```

Sequence updated (26-May-2000).

\* NOTE: This is a 'working draft' sequence. It currently consists of 24 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.

```

1      26584 contig of 26584 bp in length
26585 26684 gap of 100 bp
26685 48988 contig of 22304 bp in length
48989 49088 gap of 100 bp
49089 64798 contig of 15710 bp in length
64799 64898 gap of 100 bp
64899 80877 contig of 15979 bp in length
80878 80977 gap of 100 bp
80978 94387 contig of 13410 bp in length
94388 94487 gap of 100 bp

```

```

*      94488 108131 contig of 13644 bp in length
108132 108231 gap of 100 bp
108232 115507 contig of 7276 bp in length
115508 115607 gap of 100 bp
115608 125425 contig of 9818 bp in length
125426 125525 gap of 100 bp
125526 136206 contig of 10681 bp in length
136207 136306 gap of 100 bp
136307 144932 contig of 8626 bp in length
144933 145032 gap of 100 bp
145033 152815 contig of 7783 bp in length
152816 152915 gap of 100 bp
152916 157857 contig of 4942 bp in length
157858 157957 gap of 100 bp
157958 162888 contig of 4931 bp in length
162889 162988 gap of 100 bp
162989 166526 contig of 3538 bp in length
166527 166626 gap of 100 bp
166627 169154 contig of 2528 bp in length
169155 169254 gap of 100 bp
169255 172774 contig of 3520 bp in length
172775 172874 gap of 100 bp
172875 176556 contig of 3682 bp in length
176557 176656 gap of 100 bp
176657 179663 contig of 3007 bp in length
179664 179763 gap of 100 bp
179764 181210 contig of 1447 bp in length
181211 181310 gap of 100 bp
181311 183689 contig of 2379 bp in length
183690 183789 gap of 100 bp
183790 185492 contig of 1703 bp in length
185493 185592 gap of 100 bp
185593 187965 contig of 2373 bp in length
187966 188065 gap of 100 bp
188066 189461 contig of 1396 bp in length
189462 189561 gap of 100 bp
189562 191090 contig of 1529 bp in length.

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## FEATURES

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1. .191090
/organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="18"
/map="18p11.3"
/clone="RP11-77108"

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## misc\_feature

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125526. .136206
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162989. .166526
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166627. .169154

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172875. .176556
/note="assembly_fragment"
176857. .179663
/note="assembly_fragment"
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/note="assembly_fragment"
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52517 a 41009 c 41120 g 54142 t 2302 others
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Best Local Similarity 99.8%; Pred. No. 1.5e-132;
Matches 622; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Db 60516 AGGTGGGTGAATCAAGGCCCATCGCCAGAGTGGGAAGCCCAATGTCACGGCTGAGTTCC 60575

QY 1503 gggagacacggcgaaggtcagcgtggagatccacgataagctgcagcggcgccacca 1562
Db 60576 GGGAGACACGGCGAAGGTCAGCTGGAGATCCACGATAGCTGACGGCGGCCACCA 60635

QY 1563 tcgcagcatggagcgcggcggtggtcctggaccagcgggcccactcactggacatgc 1622
Db 60636 TCCGCAGCATGGAGCGCGCGGCGCTGGCGCTGGACACCGCGCCCTCACTGGACATGC 60695

QY 1623 tttcccccagaagcgtctgtctttgtgcccctgagacacgcgcgcttcaaggcctcat 1682
Db 60696 TGTCCTCCCGAAGCGCTGTCTCTTTGTGCTCCCTGGACACCGCGCGCTCAAGGCTCAT 60755

QY 1683 ccagagagcatcaacacccgcccacacactcgcctgaagggcgagcagctga 1742
Db 60756 CCCAGGAGAGCATCAACAAACCGGCCCAACACCTCGGCTGAAGGGCGCGGAGCAGCTGA 60815

QY 1743 acaagcatggcgaggtgctccgaggacaacatcatcaacaagtctcgggtccacctcca 1802
Db 60816 ACAAGCATGGCGAGGTCGCTCCGAGGACAACATCATCAACAAGTTCGGGTCCACCTCCA 60875

QY 1803 gactcacaagagaaaacaagagcctcaaaaagacgttgcgcgagacggttcagaaaa 1862
Db 60876 GACTCACAAGAGAAAACAAGGACCTCAAAAGACCTTGCCCGAGGACGTTCAAGAAA 60935

QY 1863 ttataagaccttcgcgaattactccctggcagagagaagaaaagaggagaaacggaaa 1922
Db 60936 TCTACAAGACCTTCGGAATTAATCTCCCTGGAGAGAGAGAAAGAGAGAGAGAGAGAA 60995

QY 1923 agatgtgtaactcagacaactccacagcagccatgtcagcgactgtatccagcagcag 1982
Db 60996 AGATGTGTAACCTCAGACAACCTCCAGCAGACGCATGCTCAGCGACTGTATCCAGCAGCAG 61055

QY 1983 ctgagttgagaacggaatgataccacgcgcacacaaagaccgggagcgggagaacaact 2042
Db 61056 CTGAGTTGGAAACGGAATGATACCCAGGACACCAAGACCGGAGCGCGGAGAACAACT 61115

QY 2043 cattactgaagacagaaactaa 2065
Db 61116 CATTACTTGAAGACAGAAACTAA 61138
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RESULT 6

CNS01DUM/c  
LOCUS  
DEFINITION  
ACCESSION  
VERSION  
KEYWORDS  
SOURCE  
ORGANISM  
REFERENCE  
AUTHORS  
TITLE  
JOURNAL  
REFERENCE  
AUTHORS  
TITLE  
JOURNAL  
COMMENT

CNS01DUM 197224 bp DNA linear PRI 26-APR-2001  
Human chromosome 14 DNA sequence BAC R-753D20 of library RPCI-11  
from chromosome 14 of Homo sapiens (Human), complete sequence.  
AL133279  
AL133279.7 GI:13513078  
HTG.  
human.  
Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
1 (bases 1 to 197224)  
Heilig,R., Petit,J.L., Vico,V., Dasilva,C., Robert,C., Wincker,P.,  
Brottier,P., Cattolico,L., Barbe,V., Pelletier,E., Artiguenave,F.,  
Levy,M., Eckenberg,R., Bruls,T., Deberardinis,V., Cruaud,C.,  
Gyapay,G., Saurin,W. and Weissenbach,J.  
Sequencing of the human chromosome 14  
Unpublished  
2 (bases 1 to 197224)  
Genoscope.  
Direct Submission  
Submitted (26-APR-2001) Genoscope - Centre National de Sequencage :  
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr  
- Web : www.genoscope.cns.fr)  
On Apr 2, 2001 this sequence version replaced gi:12733870.  
----- Genome Center  
Center: Genoscope / Centre National de Sequencage  
Center code: GS  
Web site: http://www.genoscope.cns.fr/  
Contact: seqref@genoscope.cns.fr  
-----

The following BAC sequence is oriented from the T7 to the SP6 end.  
Upstream BAC (overlapping the T7 end) : R-300J18  
Downstream BAC (overlapping the SP6 end) : R-556K1 (AC-AL049834)  
----- Summary Statistics  
Assembly program: Phrap; version 2.0  
Quality coverage: 4.36x in Q20 bases; sum-of-contigs  
-----

Overall quality chart :

Range : bases  
0 :  
1 - 9 :  
10 - 19 : 5  
20 - 29 : 29  
30 - 39 : 435  
40 - 49 : 4625  
50 - 59 : 10185  
60 - 69 : 16319  
70 - 79 : 37578  
80 - 89 : 72140  
90 - 99 : 55908

Percentage of bases with a quality value >= 40 : 99 %.

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/db\_xref="taxon:9606"  
/chromosome="14"  
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19863. 19994  
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dbSTS:STS25998  
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RHdb:RH53861  
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RHdb:RH9470  
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STS

STS

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Best Local Similarity 99.8%; Pred. No. 1.5e-132;  
Matches 622; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1443 agtgggtgaaatcaaggccatcgccgagagtggaagccaatgtcagcggtgagttcc 1502  
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QY 1503 ggagacagcgcaagcctcagcgtggaatccacatgaatcgcagcggcgagccacca 1562  
DB 87580 GGAGACAGCGCAGCGCTCAGCGTGAGATCCACCATATAGCTGCAGCGCGCGCCACCA 87521

QY 1563 tcgcagcatggagcgccggcgctggccctggaccagcgggccactcaactgacatgc 1622  
DB 87520 TCCGACGATGGAGCGCGCGCGCTGGCGCTGGACCGCGGGCCCACTCACTGGACATGC 87461

QY 1623 tgtcccccagagagcgtctgttttgcctcgacacggcgcccttcaagcgctcat 1682  
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QY 1743 acaagcatggcaggggtgcgctcgaggaacaacatcatcaaaagttcgggtccacctcca 1802  
DB 87340 ACAAGCATGGCAGGGTGGCTCCGAGGACAAACATCATCAACAGTTTCGGGTCCACCTCCA 87281

QY 1803 gactccaaagagaaacaaagacctcaaaaagaccttgcggagggagcttcagaaaa 1862  
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QY 1863 tctacaagaccttcggaattactccctgacagagagaagaagagaggaacggaagaa 1922  
DB 87220 TCTACAGAGACTTCCGGAATTACTCCCTGGACGAGGAGAAAGAGGAGGAGACGGAA 87161

QY 1923 agatgttaactcagacaactccagcacagccatgtctgacggactgtatccagcagcag 1982  
DB 87160 AGATGTGTAATCAGACAACCTCCGACACAGCCATGCTGACGGACTGTATCCACGACAGC 87101

QY 1983 ctgagtggagaaacgaatgatgccacagagacacaaagacggcgagcgagaaacact 2042  
DB 87100 CTGAGTTGGAGAACGGAATGATACCCACGAGACACCAAGACCGGGAGCGGAGAACT 87041

QY 2043 cattacttaagacagaaactaa 2065  
DB 87040 CATTACTTGAAGACAGAACTAA 87018

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DEFINITION  
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VERSION AF325671.1  
KEYWORDS GI:15528824  
SOURCE Norway rat.  
ORGANISM Rattus norvegicus  
Eukaryota; Metazoa; Chordata; Cranialata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
REFERENCE 1 (bases 1 to 3187)  
Bockenhauer, D., Zilberberg, N. and Goldstein, S.A.  
KCNK2: reversible conversion of a hippocampal potassium leak into a voltage-dependent channel  
Nat. Neurosci. 4 (5), 486-491 (2001)  
21219399  
MEDLINE 11319556  
PUBMED  
REFERENCE 2 (bases 1 to 3187)  
Bockenhauer, D. and Goldstein, S.A.N.  
Direct Submission  
Submitted (01-DEC-2000) Pediatrics, Section of Developmental Biology and Biophysics, Yale University Medical School, Boyer Center for Molecular Medicine, 295 Congress Avenue, New Haven, CT 06536, USA  
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BASE COUNT 829 a 761 c 786 g 811 t  
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Query Match 23.1%; Score 476; DB 10; Length 3187;  
Best Local Similarity 67.9%; Pred. No. 3.1e-99;  
Matches 697; Conservative 0; Mismatches 320; Indels 9; Gaps 2;

QY 538 gcaaccccgcgctccgctccgactccaactccgctgctccatctcccccagccac 597  
DB 109 GGATCCCAAGTCGTCTGCCTCAGAACTCCAAACCGAGGCTCTCGTCTCCGCAAAACCCAC 168

QY 598 agtggtagccaggtggaaggccacctcccaagggggcttgacagacgctcatgaagtggaa 657  
DB 169 CGTCTTGTCTCCCGGTGGAGAGTGACTCGG-----CCATTAATGTTATGAATGGAA 222

QY 658 gaacggtggttgccatcttgggttggttggtctaccctgtcactggcggttcttctt 717  
DB 223 GACGGTCTCCACGATTTCTCTGCTGCTCCTCTCCTGATCATCGGAGCCCGGTGTT 282

QY 718 ccgggcatggagcagccctttgagagcagccagagaataccatcgctcttgaggaaggc 777  
DB 283 CAAGGGTTGGAGCAGCCCTCAGGAGATTCTTCAGAGACCACCATGTTGATCCAGAAACA 342

QY 778 ggaattctctgaggatcatgtctgtgagccccccaggagctggagacgttgatccagca 837

Db	343	GAACCTCATGCCAGCATGCCTCGGCAACTCCACCGAGCTGGATGAACATCAACGCA	402
Qy	838	tgccttgatgctgacatcgaggagtcagtcaccaataggaactcttccaaacaacagcag	897
Db	403	AATAGTCAGCGCCATAAATGACGGGATATCCCTTAGGAAACAACATCCCAATCAAGTTAG	462
Qy	898	ccactgggaactcggcagtgccctttcttcttgcgggaactgtcattacgacccatagagta	957
Db	463	TCATGGGAGACTCGGAAGCTCTTTCTCTTTGCGGCACCTGTTATCAACAACATAGGATT	522
Qy	958	tgggaatatgctccgagcactgaaggaggcaaaacttttggatttatattatgcatctt	1017
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Qy	1078	tgggaaaagcattgcaagagtggagaaggtcttccgaaaaagcaagtgcagtcagaccaa	1137
Db	643	TGAAAAAGGAATTCGCAAAAGTGGAGGACATATTATTAAAGTGAATGTTAGTCAGACCAA	702
Qy	1138	gatacggggtcatctcaaccactcctgttcatcttgcgcggcttgcatgtgttggtagcagat	1197
Db	703	GATTCGTATCATCTCGACCATCATCTTCATCTCTTTGGCTGTCTCTTCGTGGCTCT	762
Qy	1198	ccctgctgtcatctttaagtacatcgagggctgacggccttggagtcatttactttgt	1257
Db	763	CCCCGCCGTATATTCAAGCACATAGAAAGCTGGAGTGCCTCGACGCCATCTACTTTGT	822
Qy	1258	gggtggtcactctgaccacggtgggctttggtgatttggcaggggaaacgctggcat	1317
Db	823	GGTCATCACTGTGACCAACCATTTGGAATTTGGCGATTATGTGGCAGTGG--GTCGGACAT	879
Qy	1318	caattatcgggagtggtataagccccctagtgtggtttgataccttggccttgcta	1377
Db	880	TGAATATCTGGAGCTCTACAGCCCGCTGCTGTGCTTCTGGATCTCGTTGGCTTGGCCTA	939
Qy	1378	ctttgcagctgtcctcagtatgacgagattggtcagggttctctgccaaaaagacaaa	1437
Db	940	CTTTGCGGCTGTTCTGAGCATGATGGAGACTGGCTACGGGTGATATCTAAGAAGACGAA	999
Qy	1438	agaagagtggtggaatcaagccccctcggcagagtggaaggccaatgtccacggctga	1497
Db	1000	GGAAGAGTGGGAGAGTTTCAGAGCGCATGCCGCTGAGTGGACAGCCCAATGTCAGCGCA	1059
Qy	1498	gttcggggagacacggcggaaggctcagcgtgagatccacgataagctgacgcggcgcc	1557
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Qy	1558	caecat 1563	
Db	1120	GTCCGT 1125	
RESULT	8		
MMU73488			
LOCUS	MMU73488	3580 bp	linear
DEFINITION	Mus musculus TREK-1 K+ channel subunit mRNA		linear
ACCESSION	U73488		
VERSION	U73488.2		
KEYWORDS	GI:4584798		
SOURCE	house mouse.		
ORGANISM	Mus musculus		
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
AUTHORS	1 (bases 1 to 3580)		
TITLE	Fink, M., Duprat, F., Lesage, F., Reyes, R., Romey, G., Heurteaux, C. and		
JOURNAL	Lazdunski, M.		
	Cloning, functional expression and brain localization of a novel		
	unconventional outward rectifier K+ channel.		
	EMBO J. 15 (24), 6854-6862 (1996)		



[illegible]

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QY 824 acgttgatccagcatgctcttgatgctgacaaatgcggagatcagtgccaaataggaaactct 883
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RESULT 12
AX054800
LOCUS AX054800
DEFINITION Sequence 1 from Patent WO0072863.
ACCESSION AX054800
VERSION AX054800.1 GI:12228256
KEYWORDS
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 1246)
AUTHORS Hervieu,G.J., Meadows,H.J. and Randall,A.D.
TITLE Uses of h-trek-1 polypeptides and polynucleotides encoding them
JOURNAL Patent: WO 0072863-A 1 07-DEC-2000;
SMITHKLINE BEECHAM PLC (GB)
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BASE COUNT 335 a 280 c 302 g 329 t
ORIGIN

Query Match 22.7%; Score 468.2; DB 6; Length 1246;
Best Local Similarity 70.0%; Pred. No. 1.7e-97;
Matches 645; Conservative 0; Mismatches 273; Indels 3; Gaps 1;

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RESULT 13
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LOCUS        Homo sapiens two-pore domain potassium channel TREK-1 (TREK-1)
DEFINITION   mRNA, complete cds.
ACCESSION   AF171068
VERSION      AF171068.1 GI:9622334
KEYWORDS     human.
SOURCE       Homo sapiens
ORGANISM     Homo sapiens
REFERENCE    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
AUTHORS      Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.
TITLE        1 (bases 1 to 1252)
Meadows, H.J., Benham, C.D., Cairns, W., Gloger, I.S., Jennings, C.,
Medhurst, A.D., Murdoch, P. and Chapman, C.G.
Cloning, localisation and functional expression of the human
orthologue of the TREK-1 potassium channel
Pflugers Arch. 439 (6), 714-722 (2000)
JOURNAL      20244931
MEDLINE      10784345
PUBMED
REFERENCE    2 (bases 1 to 1252)
Chapman, C.G., Gloger, I.S. and Meadows, H.J.
Direct Submission
TITLE        Submitted (22-JUL-1999) Biotechnology & Genetics, SmithKline
JOURNAL      Beecham Pharmaceuticals, New Frontiers Science Park (North), Third
              Avenue, Harlow, Essex CM19 5AW, UK
FEATURES     Location/Qualifiers
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BASE COUNT   335 a 282 c 303 g 332 t
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Query Match      22.7%; Score 468.2; DB 9; Length 1252;
Best Local Similarity 70.0%; Pred. No. 1.7e-97;
Matches 645; Conservative 0; Mismatches 273; Indels 3; Gaps 1;
Qy 644 gtcagtggaagcgggtggtgccatcttgggttggtggtggtcaccctgtcact 703
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Db 135 GTTATGAATGGAAGCGTCTCCACGATATTCCTGGTGTGCTCTATCTGATCATC 194
Qy 704 ggcggtctgtcttcggccattggagcagccctttggagcagcagcagaagaccatc 763
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Qy 1544 ctgcagcggggcgccaccatc 1564
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RESULT 14
AX018706      1993 bp      DNA      linear      PAT 07-SEP-2000
LOCUS        Sequence 2 from Patent WO9945108.
DEFINITION   AX018706
ACCESSION   AX018706
VERSION      AX018706.1 GI:10042827
KEYWORDS     Mus sp.
SOURCE       Mus sp.
ORGANISM     Mus sp.
REFERENCE    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
AUTHORS      Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
TITLE        1 (bases 1 to 1993)
Fink, M., Honore, E., Duprat, F., Lesage, F. and Lazdunski, M.
Novel mechanically sensitive mammal potassium channel family
activated by polyunsaturated fatty acids and their use particularly
for screening medicines
Patent: WO 9945108-A 2 10-SEP-1999;
FINK MICHEL (FR); HONORE ERIC (FR); DUPRAT FABRICE (FR); LESAGE
FLORIAN (FR); CENTRE NAT RECH SCIEN (FR); LAZDUNSKI MICHEL (FR)
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BASE COUNT      426 a  570 c  561 g  436 t
ORIGIN

Query Match      22.7%; Score 468; DB 6; Length 1993;
Best Local Similarity 67.4%; Pred. No. 2e-97;
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QY 1258 ggtgggtcactctgacacagctggtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 1317
DB 1218 GGTATACACTCTGACGACCAATGGATTTGGAGACTACGTTGGCAGGTGGA---TCAGACAT 1274
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QY 1318 caattatcggagtggtataaagccctcctagtggtgttttgatcctctgttgcccttgoccta 1377
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QY 1378 ctttcagctgtcctcagtcagtcagtcagtcagtcagtcagtcagtcagtcagtcagtcag 1437
DB 1335 CTTTTCAGCTGTCTGAGCATGATTGGGACTGGCTACGGGTGATCTCTAAGAAAGACGAA 1394
QY 1438 agaagagtggtggaatacaagcccatcgccagagtcagagtcagagtcagagtcagagtcag 1497
DB 1395 GGAAGAGGTGGGAGATTGAGAGCGCATGCCGTGAGTGAGTGACAGCCAAATGTCACGGCCGA 1454
QY 1498 gttccgggagacagcgcgaaggtcagtcagtcagtcagtcagtcagtcagtcagtcagtcag 1557
DB 1455 GTTCAAGAAACGAGGAGCGGCTGAGCGTGGAGATCTACGACAAGTTCACGAGCTGCCAC 1514
QY 1558 caccat 1563
DB 1515 ATCCGT 1520

RESULT 15
LOCUS      AR156460
DEFINITION Sequence 5 from patent US 6242217.
ACCESSION AR156460
VERSION   AR156460.1 GI:15125164
KEYWORDS  Unknown.
SOURCE    Unknown.
ORGANISM  Unknown.
REFERENCE 1 (bases 1 to 1994)
AUTHORS   Meadows,H.Jane and Chapman,C.Gerald.
TITLE     h-TREK1 polypeptides and h-TREK1 polynucleotides
JOURNAL   Patent: US 6242217-A 5 05-JUN-2001.
FEATURES  Location/Qualifiers
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Best Local Similarity 67.4%; Pred. No. 2e-97;
Matches 692; Conservative 0; Mismatches 325; Indels 9; Gaps 2;

QY 538 gcaacccccggctccggctccgaactccaactccgcgcctgtccacttctcccgagccac 597
DB 504 GGATCCCAAGTCTGCTGCTCAGAACTCCAAACCGAGGCTCTCATCTCTTCAAACCCAC 563
QY 598 agtggtagccaggatggaagccaccctcccaaggggcttgacagccgtcatgaagtggaa 657
DB 564 CGTGTCTGCTTCCCGGTGGAGAGTCACTCGG-----CCATTAAATGTTATGAATGGAA 617
QY 658 gacgggtggttgcacatctttgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 717
DB 618 GACAGTCTCCACGATTTCTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 677
QY 718 ccggcattgagcagccctttgagagcagcagcagcagcagcagcagcagcagcagcagc 777
DB 678 CANGGCAATTGAGCAGCCTCAGGAGATTTCCAGAGACCACCATTGTGTATCCAGAGCA 737
QY 778 ggaattcctcgtgggatactgtctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 837
DB 738 GACCTTCATAGCCAGCATGCCGTGCGTCAACTCCACCGAGCTGGACGAACATCATCCAGCA 797
QY 838 tgctcttgatgctgacaaatcgggagtcagtcacaaataggaaactcttccaaacacagcag 897
DB 798 AATAGTGGCAACAAATAACCGAGGATTTCCCTTTAGGAAACAGCTCCAATCAAGTTAG 857
QY 898 ccactggacctcgagcagctcttcttctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 957
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Db 858 TCACTGGGACCTCGGAAGCTCTTCTCTTTGCTGGTACTGTTATCACAAACCATAGGATT 917
Qy 958 tgggaatatgtctccgagcactgaagagagcaaaaacttttggatatttatatgccatctt 1017
Db 918 TGGAAACATCTCCCCACGACTGAAGTGGAATAATATCTGCATCATCTATGCCCTTGCT 977
Qy 1018 tgggaattccactcttttggtttcttattggctgggaattggagaccaacttggaaacctt 1077
Db 978 GGGAAATCCCTCTCTTGGCTTTCTACTGGCTGGGTTGGTGCAGCTAGGAACATATATT 1037
Qy 1078 tgggaaagacattgcaagagtgagaaggtcttcttcgaaaaaagcaagtgagtcagaccaa 1137
Db 1038 TGGAAAAGGAATTGCCAAAGTGGGAAGACACATTTATTAAGTGGAAATGTATGTCAGACGAA 1097
Qy 1138 gatccgggtcatctcaaccactctgtcatcttggccggctgcatgtgtttgtgacgat 1197
Db 1098 GATTCGTATATCTCCACCATCATCTTCATCCCTGTTGGCTGTCTCTTTGGGCTCT 1157
Qy 1198 ccctgtgtcatctttaaagtacatcgagggctggacggccttggagtccttactttgt 1257
Db 1158 CCCTGGCGTCATATTCAAGCACATAGAAGGCTGGAGCGCCCTGGACGCTATCTATTTGT 1217
Qy 1258 ggtggtaactctgaccacggtgggcttggatgttggcagggggaacgctggcat 1317
Db 1218 GGTATACACTCTGACGACCATTTGGATTGGAGACTAGCTGGCAGGTGGA---TCAGACAT 1274
Qy 1318 caattatcgaggtggtataagccctagtggttttggatccctgtgtgacctgacctta 1377
Db 1275 TGAATATCTGACTTCTACAGCCCTGGGTGTGGTCTTGATCTCTGGCTGGGCTTA 1334
Qy 1378 ctttgcagctgtcctcagtgatgacgagattggctacgggttctgtccaaaaagacaaa 1437
Db 1335 CTTTGCAGCTGTTCTGAGCATGATTGGGACTGGCTACGGGTGATCTCTAAGAGACGAA 1394
Qy 1438 agaagaggtgggtgaaatcgaagcccatgcgagagtggaaggcccaatgtcacggtga 1497
Db 1395 GGAAGAGGTGGGAGAGTTCAGAGCGCATGCCGCTGAGTGGACAGCCAATGTACGGCCGA 1454
Qy 1498 gtccggagacacgcgaaggctcagctgagatccagataaagctcagcgggcggc 1557
Db 1455 GTTCAAGGAACGAGGAGCGGCTGAGCGTGGAGATCTACGACAAGTTCAGAGCGTCCAC 1514
Qy 1558 caccat 1563
Db 1515 ATCGGT 1520
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Search completed: September 21, 2002, 08:36:02  
Job time: 10313 sec

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GenCore version 4.5  
Copyright (c) 1993 - 2000 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: September 21, 2002, 06:42:59 ; Search time 333.79 seconds  
(without alignments)  
10621.733 Million cell updates/sec

Title: US-09-729-920-1

Perfect score: 2065

Sequence: 1 ggacactgacatggactgaa.....tacttgaagacagaactaa 2065

Scoring table: IDENTITY\_NUC

Gapop 10.0 , Gapext 1.0

Searched: 1736436 seqs, 858457221 residues

Total number of hits satisfying chosen parameters: 3472872

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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23: /SIDSL/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT.\*

24: /SIDSL/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	949.8	46.0	1152	23	AA566918
2	721.2	34.9	779	22	AAH98807
3	619.8	30.0	1671	23	AA572492
4	469.6	22.7	3580	21	AAD17497
5	468.2	22.7	1236	21	AAD17496
6	468.2	22.7	1246	20	AA200039
7	468.2	22.7	1246	22	AA200041
8	468.2	22.7	3300	20	AA211915
9	468	22.7	1993	20	AA210607
					DNA encoding novel
					Human EST-derived
					DNA encoding novel
					Murine TREK-1 pota
					Human TREK-1 potas
					h-TREK1 polynucleo
					Human TREK coding
					Human potassium ch
					DNA encoding a me

10	468	22.7	1994	20	AAZ00040	Mouse h-TREK1 poly
11	458.6	22.2	2130	22	AA512169	Human potassium io
12	458.6	22.2	2130	22	AA512181	Human potassium io
13	457	22.1	2130	22	AA512182	Human potassium io
14	457	22.1	2130	22	AA512184	Human potassium io
15	455.4	22.1	2130	22	AA512183	Human potassium io
16	405.4	19.6	458	23	AA566917	DNA encoding novel
17	280.8	13.6	3945	22	AA511984	Human CDNA encodin
18	279.2	13.5	1218	21	AA527106	Human h-TAAK CDNA
19	279.2	13.5	1257	24	AAH99922	Nucleotide sequenc
20	279.2	13.5	1408	24	AAH99921	Human CDNA encodin
21	279.2	13.5	3996	22	AA508652	Human h-TAAK CDNA
22	276.8	13.4	1182	21	AA527105	Human h-TAAK CDNA
23	276.8	13.4	1182	22	AAH78636	Human mechanically
24	250.8	12.1	1794	20	AA210606	CDNA encoding a me
25	190.4	9.2	557	22	ABA61503	Human foetal liver
26	190.4	9.2	557	22	AAK09803	Human brain expres
27	190.4	9.2	557	22	AAK35697	Human bone marrow
28	190.4	9.2	557	22	AA141412	Probe #10098 used
29	188.8	9.1	270	22	ABA75754	Human foetal liver
30	188.8	9.1	270	22	AAK24387	Human brain expres
31	188.8	9.1	270	22	AA156375	Probe #25061 used
32	188.8	9.1	547	22	ABA63312	Human foetal liver
33	188.8	9.1	547	22	AAK11797	Human brain expres
34	188.8	9.1	547	22	AA143395	Probe #12081 used
35	187	9.1	187	22	ABA74001	Human foetal liver
36	187	9.1	187	22	AAK22454	Human brain expres
37	187	9.1	187	22	AAK48622	Human bone marrow
38	187	9.1	187	22	AA154450	Probe #23136 used
39	181	8.8	321	20	AA200041	Partial h-TREK1 po
40	164.4	8.0	723	23	AA571420	DNA encoding novel
41	142.8	6.9	885	23	AA566919	DNA encoding novel
42	140.4	6.8	3768	21	AAAL5953	Human protein clon
43	140.2	6.8	1497	21	AAAL5943	Human protein clon
44	140.2	6.8	1498	21	AAA37771	Human TWIK-2 codin
45	140.2	6.8	1839	23	AA590940	DNA encoding novel

#### ALIGNMENTS

RESULT 1

AA566918

ID AA566918 standard; cDNA; 1152 BP.

XX AA566918;

AC AA566918;

XX 13-FEB-2002 (first entry)

DT DNA encoding novel human diagnostic protein #2722.

DE Human: chromosome mapping; gene mapping; gene therapy; forensic;

DE food supplement; medical imaging; diagnostic; genetic disorder; ss.

XX Homo sapiens.

XX WO200175067-A2.

XX 11-OCT-2001.

XX 30-MAR-2001; 2001WO-US08631.

XX 31-MAR-2000; 2000US-0540217.

PR 23-AUG-2000; 2000US-0649167.

XX (HYSE-) HYSEQ INC.

XX Drmanac RT, Liu C, Tang YT;

XX WPI: 2001-639362/73.

XX P-PSDB; ABG02731.

XX New isolated polynucleotide and encoded polypeptides, useful in

PT



CC forensics, gene mapping, identification of mutations, to assess  
CC biodiversity and for nutritional purposes. The present sequence is a cDNA  
CC of the invention.

XX Sequence 779 BP; 170 A; 175 C; 221 G; 213 T; 0 other;

Query Match 34.9%; Score 721.2; DB 22; Length 779;  
Best Local Similarity 97.0%; Pred. No. 5.7e-175;  
Matches 735; Conservative 0; Mismatches 23; Indels 0; Gaps 0;

Qy 597 cagtggtgagcagatgaaagcaccctcccaagggggttgcagaccgtcatgaagtga 656  
Db 8 cagtggtgagcagatgaaagcaccctcccaagggggttgcagaccgtcatgaagtga 67  
Qy 657 agacggtggtgcatcttttgggttgggtggttgcacgttgcactggtgtgtct 716  
Db 68 agacggtggtgcatcttttgggttgggtggttgcacgttgcactggtgtgtct 127  
Qy 717 tccgggcatgagcagcccttgcagagcagccagaaataaccatcccttgagaaagg 776  
Db 128 tccgggcatgagcagcccttgcagagcagccagaaataaccatcccttgagaaagg 187  
Qy 777 cggaaattcctcgggatcatctgtgtgagccccagagctggagacgttgatccagc 836  
Db 188 cggaaattcctcgggatcatctgtgtgagccccagagctggagacgttgatccagc 247  
Qy 837 atgctcttgatcgcagcaatcgaggagcagtcacatcgaactcttccaaacagca 896  
Db 248 atgctcttgatcgcagcaatcgaggagcagtcacatcgaactcttccaaacagca 307  
Qy 897 gccactggagcctcgagcagtccttttcttgcggagctgcatcagaccatagggt 956  
Db 308 gccactggagcctcgagcagtccttttcttgcggagctgcatcagaccatagggt 367  
Qy 957 atgggaattatgctcggagcactgaagagggcaaaattttgtattttatgcatct 1016  
Db 368 atgggaattatgctcggagcactgaagagggcaaaattttgtattttatgcatct 427  
Qy 1017 ttggaattccactcttgggttcttattgctggaattggagacaaacttgaaccatct 1076  
Db 428 ttggaattccactcttgggttcttattgctggaattggagacaaacttgaaccatct 487  
Qy 1077 ttgggaaagcattgcaagagtgagaaagggtcttccgaaaaagcaagtgcagacca 1136  
Db 488 ttgggaaagcattgcaagagtgagaaagggtcttccgaaaaagcaagtgcagacca 547  
Qy 1137 agatccgggtcatctcaaccatcctgttcatcttgccggctgcatgtgtgttgacga 1196  
Db 548 agatccgggtcatctcaaccatcctgttcatcttgccggctgcatgtgtgttgacga 607  
Qy 1197 tccctgctgcatctttaaagtacatcgagggtgagcccttgagtcctatttactttg 1256  
Db 608 tccctgctgcatctataagtaactcggagggtcgagccgttggagtcctatttactttg 667  
Qy 1257 tgggtggtcactctgaccacgtgggcttgggtgatttggcgagggggaacgctggca 1316  
Db 668 tgggtggtcactcccgccacggtgggcttgggtgatttggcgaggggaaaccgctggca 727  
Qy 1317 tcaattatcggagtggtataagcccttagtgggtt 1354  
Db 728 tcaattatcagagtggtattcgcgcgctgtggggtc 765

RESULT 3

AAS72492

ID AAS72492 standard; cDNA; 1671 BP.

XX

AC AAS72492;

XX

DT 13-FEB-2002 (first entry)

XX

DE DNA encoding novel human diagnostic protein #8296.

XX

KW

KW

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OS

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PD

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FT

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Qy 1443 aggtgggtgaaatcaagcccatcgccagagtgagaaagcccaatcagcgtgattcc 1502  
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Qy 1503 gggagacacgagcagcgtcagctgagatccacgataagctcagcggcgccacca 1562  
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Human; chromosome mapping; gene mapping; gene therapy; forensic;  
food supplement; medical imaging; diagnostic; genetic disorder; ss.

Homo sapiens.

WO200175067-A2.

11-OCT-2001.

30-MAR-2001; 2001WO-US08631.

31-MAR-2000; 2000US-0540217.

23-AUG-2000; 2000US-0649167.

(HYSE-) HYSEQ INC.

Dmanac RT, Liu C, Tang YT;

WPI; 2001-639362/73.

P-PSDB; ABG08305.

New isolated polynucleotide and encoded polypeptides, useful in  
diagnostics, forensics, gene mapping, identification of mutations  
responsible for genetic disorders or other traits and to assess  
biodiversity.

Claim 1; SEQ ID No 8296; 103pp; English.

The invention relates to isolated polynucleotide (I) and  
polypeptide (II) sequences. (I) is useful as hybridisation probes,  
polymerase chain reaction (PCR) primers, oligomers, and for chromosome  
and gene mapping, and in recombinant production of (II). The  
polynucleotides are also used in diagnostics as expressed sequence tags  
for identifying expressed genes. (I) is useful in gene therapy techniques  
to restore normal activity of (II) or to treat disease states involving  
(II). (II) is useful for generating antibodies against it, detecting or  
quantitating a polypeptide in tissue, as molecular weight markers and as  
a food supplement. (II) and its binding partners are useful in medical  
imaging of sites expressing (II). (I) and (II) are useful for treating  
disorders involving aberrant protein expression or biological activity.  
The polypeptide and polynucleotide sequences have applications in  
diagnostics, forensics, gene mapping, identification of mutations  
responsible for genetic disorders or other traits to assess biodiversity  
and to produce other types of data and products dependent on DNA and  
amino acid sequences. AAS64197-AAS94564 represent novel human  
diagnostic coding sequences of the invention.

Note: The sequence data for this patent did not appear in the printed  
specification, but was obtained in electronic format directly from WIPO  
at ftp.wipo.int/pub/published\_pct\_sequences.

Sequence 1671 BP; 540 A; 375 C; 462 G; 294 T; 0 other;

Query Match 30.0%; Score 619.8; DB 23; Length 1671;

Best Local Similarity 99.7%; Pred. No. 9.6e-149;

Matches 621; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1683 ccaggagagcatcaaacacccggcccaaacacccctgcgcctgaaggggccggagcagctga 1742  
 |||||  
 Db 1289 ccaggagagcatcaaacacccggcccaaacacccctgcgcctgaaggggccggagcagctga 1348  
 |||||  
 QY 1743 acaagcatggcgaggtgctgcgcgcagagcaacatcatcaacaagttcgggtccacctcca 1802  
 |||||  
 Db 1349 acaagcatggcgaggtgctgcgcgcagagcaacatcatcaacaagttcgggtccacctcca 1408  
 |||||  
 QY 1803 gactcacaagagagaaacaaagacactcaaaaagaccttgcgcggagcgttcagaaaaa 1862  
 |||||  
 Db 1409 gactcacaagagagaaacaaagacactcaaaaagaccttgcgcggagcgttcagaaaaa 1468  
 |||||  
 QY 1863 tctacaagacactccggaaattactcctgcgcgcagagagagaaagagagagagagagagaa 1922  
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 Db 1469 tctacaagacactccggaaattactcctgcgcgcagagagagagagagagagagagagaa 1528  
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 QY 1923 agatgttaactcagacaactccagcacagcctgctgcgcgcactgtatccagcagcagc 1982  
 |||||  
 Db 1529 agatgttaactcagacaactccagcacagcctgctgcgcgcactgtatccagcagcagc 1588  
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 QY 1983 ctgagttgagaacgaagatgataccacagagacacaaagacccggagcggagagaaacact 2042  
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 Db 1589 ctgagttgagaacgaagatgataccacagagacacaaagacccggagcggagagaaacact 1648  
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 QY 2043 cattacttgaagacagaaactaa 2065  
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 Db 1649 cattacttgaagacagaaactaa 1671  
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## RESULT 4

AAD17497  
 ID AAD17497 standard; DNA; 3580 BP.  
 XX  
 AC AAD17497;  
 XX  
 DT 10-DEC-2001 (first entry)  
 XX  
 DE Murine TREK-1 potassium channel protein DNA.  
 XX  
 KW Murine; potassium channel protein; TREK-1; anaesthetic; analgesia;  
 KW amnesia; ds.  
 XX  
 OS Mus musculus.  
 XX  
 FH Key Location/Qualifiers  
 FT CDS 484..1719  
 FT /\*tag= a  
 FT /product= "Murine TREK-1 potassium channel protein"  
 XX  
 PN WO200047738-A2.  
 XX  
 XX 17-AUG-2000.  
 XX  
 PF 11-FEB-2000; 2000WO-IB00226.  
 XX  
 PR 12-FEB-1999; 99US-0119727.  
 PR 11-FEB-2000; 2000US-0503089.  
 XX  
 XX (CNRS ) CNRS CENT NAT RECH SCI.  
 XX  
 XX Lazdunski M, Honore E, Lesage F, Romey G, Patel AJ;  
 PI WPI; 2000-549146/50.  
 DR P-PSDB; AAE10342.  
 XX  
 XX Novel nucleic acid encoding a TREK-1 potassium channel protein for  
 PT transfecting cells to be used to identify compounds with anesthetic  
 PT properties -  
 XX  
 XX Claim 7; Page 29-31; 39pp; English.  
 PS  
 XX The invention relates to human and mouse TREK-1 potassium channel

CC proteins and their corresponding DNA molecules. TREK-1 nucleic acid is  
 useful for transfecting cells to induce expression of the TREK-1  
 CC potassium channel protein. These cells are then used in assays to  
 CC identify compounds which have anaesthetic properties, producing a safe,  
 CC reversible state of unconsciousness with concurrent amnesia and analgesia  
 CC in a mammal upon inhalation. The present DNA sequence encodes murine  
 XX TREK-1 potassium channel protein.  
 SQ Sequence 3580 BP; 870 A; 917 C; 913 G; 880 T; 0 Other;

Query Match 22.7%; Score 469.6; DB 21; Length 3580;  
 Best Local Similarity 67.5%; Pred. No. 4.5e-110;  
 Matches 693; Conservative 0; Mismatches 324; Indels 9; Gaps 2;

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 Db 504 ggaatcccaagctgctgcgcagaaactccaaacgcgagctctcaattctctcaaaacccac 563  
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 QY 598 agtggtagccaggatggaagccacccccaagggggcttgacagccgtcatgaagtggaa 657  
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 Db 564 cgtgctgttcccggttgagagtgactcgg-----ccattaatgttatgaaatggaa 617  
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 |||||  
 Db 618 gacagctccacgatttctcgtggtcctcctacctgacatcggagcgcggtgtt 677  
 |||||  
 QY 718 ccgggcattggagcagccctttgagagcagcagaagaataccatcgccttgagagagc 777  
 |||||  
 Db 678 caaggcattggagcagccctcagagagattccacagagaccacccattgtatccagaagca 737  
 |||||  
 QY 778 ggaattcctgcgggcatctgtgtgagcccccaggagctggagacgttgatccagca 837  
 |||||  
 Db 738 gaccttcatagccagcagctcgtcgtcaactccacgcagctgagcaactcatccagca 797  
 |||||  
 QY 838 tgcctttgatctgacaatgcgggagtcagtcacataggaacactcttccaaacacgcag 897  
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 Db 798 aatagtgagcaataaacgcaggggattatcccttaggaacacagctccaatcaagttag 857  
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 QY 898 ccactggacccgcgcagtcctttcttctgtggaactgtctacacacatagggta 957  
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 Db 858 tcactggacccgcgcagtcctttcttctgtggtgactgtatcacaacacatagatt 917  
 |||||  
 QY 958 tgggaatattgtccgcagcactgaagagagcaaaacttttttatattatgccatctt 1017  
 |||||  
 Db 918 tggaaacatctccacgaactgaaggtggaataattctgcatcatctatgctctgct 977  
 |||||  
 QY 1018 tggaaatccactcttgggttcttattgtgctggaattgagacacacttggaacactctt 1077  
 |||||  
 Db 978 gggaaatccctcttgggttcttactgctggtggtggtgactgacatggaactatt 1037  
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 QY 1138 gatccgggtcatctcaaccatcctgttctatcttggcgcgctgcatgtgtttgtgacgat 1197  
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 QY 1198 cctgctgtcatctttaagtacatcagagggctgagcgccttgagagtcacttaactttgt 1257  
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 Db 1158 cctgctgtcatctttaagcacatagaaggtgagcgccttgagcgcctctatctattgt 1217  
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 QY 1258 ggtggtcactctgacacacggttggcttctgtgattttgtggcagggggaacgcgtggcat 1317  
 |||||  
 Db 1218 ggttatacctctgacacacattgatttgagacactcgtggcaggtgga---tcagacat 1274  
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 |||||  
 Db 1275 tgaatatctggaccttctacaagcctgtggtgtgttctggtgactcctcgttgggtggccta 1334  
 |||||  
 QY 1378 ctttgagctgtcctcagatgatcagagattggtcacgggttcttctccaaaagacaaa 1437  
 |||||









polymorphisms detected as sequence variants between multiple independent clones. Potassium channels have critical roles in various cell types and biochemical pathways. Derivative potassium channels are known to cause four human diseases: episodic ataxia with myokymia; cardiac arrhythmia (long QT syndrome); epilepsy; and Bartter's syndrome. As potassium channels are critical components of virtually all cells, it is likely that abnormal potassium channels are also implicated in certain renal, cardiovascular and central nervous system (CNS) disorders. Nucleotides encoding K-Hnov proteins may be used for identifying homologous or related proteins and the DNA sequences encoding them. They may be used to produce compositions that modulate the expression and function of the K-Hnov protein and in studying the biochemical pathways associated with it. They may also be used for the recombinant production of K-Hnov protein in fermentation cultures. Additionally, such nucleotides may be used in gene therapy protocols for the treatment of diseases associated with abnormal potassium channels.

Query Match 22.7%; Score 468.2; DB 20; Length 3300;  
Best Local Similarity 70.0%; Pred. NO. 1e-109;  
Matches 645; Conservative 0; Mismatches 273; Indels 3; Gaps 1;

Qy	544	gtcatgaagtgaagaacgggtggttcccatcttttggttggtggtggtctacattgtgcact	703
Db	170	gttatgaatggaaacggtctccacgatactcgttggttggtccctctatccgacatc	229
Qy	704	ggcggctctgtctccggcattggagcagccctttgagagcagccagaagaataccatc	763
Db	230	ggagccacggtgtcaaaagcattggagcagcctcatgagatttcacagagaccacatt	289
Qy	764	gccttggagaagcggaaattcctcgggatactctctgtgtgagccccccaggagctggag	823
Db	290	gtgatccagaagcaaacattcatccacaattccctgtgtcaatttcgacggagctggat	349
Qy	824	acgttgatccagcatgctcttgatgctgacaatcgggagtcagtcacataggaaactct	883
Db	350	gaactcttcagcaaatgtgcagcaataaactcagggattatcccttgaggaaacacc	409
Qy	884	tccaacaacagcagccactcggaactcggcagtcctttctttctgtcgtgaactgtcat	943
Db	410	tccaatccaatcagtcacgggatttgggaagtcctctctcttctgtcgtgcactgtatt	469
Qy	944	acgaccataggtgatggaaatatgctccgagcactgaagagggcaaaaattctttgtatt	1003
Db	470	acaacatagatttgaacaatctcaccacgcacagaagcggcgaataattctgtatc	529
Qy	1004	ttatagccatctttggaaattcccatcttcttggttcttatttgctggaattggagaccaa	1063
Db	530	atctatgcttactgggaattccctcttggtttcttctgttggtgagttggagatcag	589
Qy	1064	cttggaaacatctttgggaaaaagcattcaagatggagaaggctcttcgaaaaagcaa	1123
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Qy	1124	gtgagtcagaccagaatccgggtcatctcaaacatctcgtttcatcttggccgctgcat	1183
Db	650	gttagtcagaccagaattcgcatactcaacaatcatattatactatttggctgtgta	709
Qy	1184	gtgtttgtacgataccctctgctcatctttaagtacatcaggggctggagccttggag	1243
Db	710	ctcttgtgctctgcctcgatcatattcaaacacatagaagcgtggagtgccctggac	769
Qy	1244	tccatttaactttgtgtggtgcactctgcaccaggtgggcttttggttgatttggagagg	1303
Db	770	gccatttattttgggtatacctctaaacaactatttggatttggtaactcgttgcaggt	829
Qy	1304	gaaaacgctggcatcaattatcggagtggtataagccccctagttggttttgcatacct	1363
Db	830	gga tccgat --- attgaaatactcggactctctataagccctgcgtgggtctctgcatacct	886
Qy	1364	qtggccttgcctactttgcagctgtccctcaatgatcgcagagattggctacaggtttctg	1423

Db	887	gtagggttctacttcttctgtctgtctctgagcatgattgagatggctcccgagtgata	946
Qy	1424	tccaaaaagacaaaagaagagggtgggtgaaatcaagcccatcggcagagtggaaagcc	1483
Db	947	tctaaaaagacaaaagaagagggtggagagttcagagcacacgctgctgagtgacagcc	1006
Qy	1484	aatgtcacggctgagttccctggggagacagcggaaggtcagagctgagatccacgataag	1543
Db	1007	aacgtcacagccgaattcaagaacaccaggagggcagctgagtgagattatgacaag	1066
Qy	1544	ctgcagcggggcgccaccatc	1564
Db	1067	ttccagcggggccacctccatc	1087
RESULT 9			
AAZ10607			
ID	AAZ10607 standard; cDNA; 1993 BP.		
XX	AAZ10607;		
AC			
XX			
DT	18-NOV-1999 (first entry)		
XX	cDNA encoding a mechanically sensitive potassium channel protein TREK-1.		
DE			
XX	Mechanically sensitive potassium channel protein; TREK-1;		
KW	polyunsaturated fatty acid; arachidonic acid; riluzole; heart disease;		
KW	nervous system disease; epilepsy; cardiovascular disease; arrhythmia;		
KW	neurodegeneration; ischemia; anoxia; hormone secretion abnormality;		
KW	muscular disease; ds.		
XX			
OS	Mus sp.		
XX			
Key	Location/Qualifiers		
FT	484..1596		
CDS	/*tag= a		
FT			
FT			
XX	W09945108-A2.		
PN			
XX			
PD	10-SEP-1999.		
XX			
PF	23-FEB-1999; 99WO-FR00404.		
XX			
PR	05-MAR-1998; 98FR-0002725.		
XX			
PA	(CNRS ) CNRS CENT NAT RECH SCI.		
XX			
PI	Honore E, Fink M, Lazdunski M, Lesage F, Duprat F;		
XX			
DR	WPI; 1999-551038/46.		
XX	P-PSDB; AAY30648.		
PT	New mechanically sensitive potassium channel, used to screen for		
PT	specific modulators, potential therapeutic agents for heart and nervous		
PT	system disorders		
XX			
PS	Claim 7; Page 23-25; 40pp; French.		
XX			
CC	The present sequence encodes a mechanically sensitive potassium		
CC	channel protein designated TREK-1. The protein is activated by		
CC	polyunsaturated fatty acids, particularly arachidonic acid, and by		
CC	riluzole. The protein is used to screen for specific modulators which		
CC	are useful for treating or preventing diseases of the heart and nervous		
CC	systems in humans and animals, e.g. epilepsy, cardiovascular disease		
CC	(arrhythmia), neurodegeneration (particularly where associated with		
CC	ischemia or anoxia), abnormalities of hormone secretion and muscular		
CC	disease. The protein itself may be used to treat these diseases.		
CC	Antibodies specific for the protein are used to detect it in tissues,		
CC	also as therapeutic inhibitors or activators.		
XX			
SO	Sequence 1993 BP; 426 A; 570 C; 561 G; 436 T; 0 other;		

Query Match	22.7%	Score 468;	DB 20;	Length 1993;
Best Local Similarity	67.4%;	Pred. No. 9e-110;		
Matches 692;	Conservative 0;	Mismatches 325;	Indels 9;	Gaps 59
QY	538	gcaaccccgctccgagctcgactcaactccgctgctccattctctccagccac	597	
Db	504	ggaaccaagctctgctcggaactcaaacccgggtctcatctctctcaaacccac	563	
QY	598	agtgtgacgaggatggaaggcactccccaaggggcttgagacggtcatgaagtgaa	657	
Db	564	cgctgtctcccggtggagagtgaactgg-----ccattaagttaataaagtga	617	
QY	658	gacggtggtgcatcttctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt	717	
Db	618	gacagtctccagatttctcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt	677	
QY	718	ccgggcatgtagcagcccttgagagcagccagaagaataccatcgcttggagaagcg	777	
Db	678	caaggattgagcagctcaggagatttccagaggaccaccattgtatccagaagca	737	
QY	778	ggaattcctcgggatcatgtctgtgtgagccccagagctggagcgttgatccagca	837	
Db	738	gacctatagccagcatgctgctgctcaactccaccgagctggacgaactcatccagca	797	
QY	838	tgctctgatctgacaatgcggaagtcagtcacaatagaagaactttccaacaacagcag	897	
Db	798	aatagtggcagcaataaacgcagggtatcccccttaggaacagctccaatcaagttag	857	
QY	898	ccactgggacctcgagctgtctttctgtgtgaaactgtcattacagcaatagggtta	957	
Db	858	tcactgggacctggaaagctttctcttctgtgtgtgtgtgtgtgtgtgtgtgtgt	917	
QY	958	tgggaatatgtccgagcactggaaggagcgaatacttttgtattttatatgccatctt	1017	
Db	918	tggaaacatctcccacgaactgaagggtggaaaaatatctgcatactatgcttgcct	977	
QY	1018	tggaaattccactcttgggtttcttattgtctggaattggagaccaacttggaaacctatt	1077	
Db	978	gggaattccccctcttggctttctactggctggggtgtgtgtgtgtgtgtgtgtgtgt	1037	
QY	1078	tggaaaaagcatatcgagagtggaagaggtctttcgaaaaagcaagtgatcgagacca	1137	
Db	1038	tggaaaaaggaattccaaaagtggaaagacacatatttaagtggaaatgttagtcagacgaa	1097	
QY	1138	gatccgggtcatctcaacacatccctgttcatcttgccggctgcatgtgtttgtgacgat	1197	
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QY	1198	ccctgtgtcatcttttaagtatcatagagggctggagcgccttggagtcatttacttctgt	1257	
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QY	1258	ggttggtcactctgaccacgtgggtctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt	1317	
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QY	1318	caattatgggagtggtgataaagccctagtgtgtgttttggatctctgttgccttgccata	1377	
Db	1275	tgaattctggacttctacaagcctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt	1334	
QY	1378	ctttgacgtctctcagtatgatcgagattggctacgggttctgttccaaaaagacaaa	1437	
Db	1335	ctttgacgtctcttgagcatgatttggggactggctacgggtgtgattctctaagaagacgaa	1394	
QY	1438	agaagaggttgggtgaaatacaaggcccatgcccagagtggaagggccaatgttcaacggctga	1497	
Db	1395	ggaagaggtggagatttcagagcgcatgcccgtgagtggaagccaatgtcagcgccga	1454	
QY	1498	gttccgggagacacggcgaaaggtctcagcgttgagatccacataagctgcagcgggcgccg	1557	
Db	1455	gttcaaggaacagagggagcggtgtgagcgttgagatctcaacatcacaagtttccagcgtgcac	1514	











pest control; membrane potential; pesticide; antihelminthic; nematode; insect; TPCK1; human; mutant.

**Homo sapiens.**

**Key** Location/Qualifiers

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CD5      178..1458
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mutation  /product= "Human TPCK1 mutant protein #3"
         /replac(991,T)
         /*tag= b
mutation  /replac(998,C)
         /*tag= c

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WO200161006-A2

23-AUG-2001

14-FEB-2001: 2001WO-IIS04680

15-FEB-2000: 2000US-0503849

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page 101.

UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D. C. 20535

WPT: 2001-536570/  
R-PCDR: AAU0762A

New polypeptide, a mutant potassium ion channel protein for improving inward potassium flux under acidic conditions -

Claim 12: page 124-125: 131pp: English:

The invention relates to a mutant potassium ion channel protein, having four membrane spanning domains and two pore forming domains, comprising a mutation at the second pore forming domain. The expression of the mutant protein in a cell confers improved inward potassium flux and the ability to grow in the presence of potassium. Mutant proteins and their corresponding polynucleotide sequences can therefore be used to improve inward potassium flux into cells under acidic conditions by modulating the membrane potential using therapeutic agents. The sequences may be used to develop agonists and antagonists of potassium channel proteins in order to control pests such as nematodes and insects. This sequence represents a human cDNA encoding a transmembrane potassium ion channel mutant TPKC1 protein.

Sequence 2130 BP: 564 A: 480 C: 488 G: 593 T: 5 other:

Query Match 22.1%; Score 455.4; DB 22; Length 2130;  
Best Local Similarity 69.2%; Pred. No. 1.6e-106;  
Matches 637; Conservative 0; Mismatches 281; Indels 3; Gaps 1;

[illegible]





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Db 489 atctatgcttactgggaattccccctcttgggtttttcttcttggctggaggtggagatcag 548  
Qy 1064 ctgtgaacattcttgggaaagcattgcaagagtggaaggtcttcttcogaaaaagcaaa 1123  
Db 549 ctaggcaccataattggaaaagaattggcaaaagtggaagatacgtttatttaagtggaat 608  
Qy 1124 gtgagtcagacaaagatccgggtgcatctcaacacatctctgttctattctggccgcgtcatt 1183  
Db 609 gttagtcagacaaagattcgcatctcaacacatctcaacacatctatactatttgcgtgtga 668  
Qy 1184 gtgtttgtgacatccctctctctatctttaaagtaacatcgagggctggacgacctggag 1243  
Db 669 cctcttggctgctgctgcgtcatctatcaaacacatagaaggctggagtcctctggac 728  
Qy 1244 tccatttacttgggtggtgactctgacacgggtgggcttgggtgatttggcaggg 1303  
Db 729 gccatttatttgggttactctcaacacatattggaattgggtgactacattgcaggt 788  
Qy 1304 ggaacgctggcatcaattatcgggagtggtatagaagccctagtggttttggatccctt 1363  
Db 789 ggaatccgat---attgaatatctggactctataagcctgctggtgtcttggatccctt 845  
Qy 1364 gttgctgcttacttctcagctgctcctcagtatgatacgagattggctacgggttctg 1423  
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Db 966 aacgtcacagcgaattcaaaagaaacagagggcgactgagtggtgagatttatgacaag 1025  
Qy 1544 ctgacggggcgccaccatc 1564  
Db 1026 ttccagggggccaccctccatc 1046

## RESULT 2

US-09-236-080-5

; Sequence 5, Application US/09236080

; Patent No. 6242217

; GENERAL INFORMATION:

; APPLICANT: Helen Meadows

; APPLICANT: Conrad Chapman

; TITLE OF INVENTION: No. 6242217el Compounds

; FILE REFERENCE: GP30031

; CURRENT APPLICATION NUMBER: US/09/236,080

; CURRENT FILING DATE: 1999-01-25

; NUMBER OF SEQ ID NOS: 6

; SOFTWARE: FastSeq for Windows Version 3.0

; SEQ ID NO 5

; LENGTH: 1994

; TYPE: DNA

; ORGANISM: Mus musculus

US-09-236-080-5

Query Match 22.7%; Score 468; DB 4; Length 1994;  
Best Local Similarity 67.4%; Pred. No. 6.4e-121;  
Matches 692; Conservative 0; Mismatches 325; Indels 9; Gaps 2;

Qy 538 gcaaccgccggtccggctccgactccaactccgctgctgctccattctcccgagccac 597  
Db 504 ggaaccagctgctgctcagacactccaacccgagctctcattcttcaaaacccac 563  
Qy 598 agtgtagccagagatggaagggacacctcccaaggggcttgcagacgcgtcatgaatgaa 657  
Db 564 cgtgctgtctccgggtggagagtgactcg-----ccattaatgttatgaaatgaa 617  
Qy 658 gacgggttgccatcttgggttgggtggtctacctgtcactggtcactggcggtctgtctt 717

Db 618 gacagtctccacgattttctctgtgtgctctctacctgatcatcggagcgcggtgtt 677  
Qy 718 cgggcoatttggagcagccctttagagcagcgcagaaagataccatcgcttggagaagc 777  
Db 678 caaggcatttggagcagccctcaggagatttccacagagaccacatttgcaccagaagca 737  
Qy 778 ggaattctcggggatcatgtgtgtgagcccccagagctggagacgttgcaccagca 837  
Db 738 gaccttcatagcccagcatgctgctgctcaactcccccagctggagaaactcatccagca 797  
Qy 838 tgcctctgagctgacaaatgcgggagtcagtcctaataggaaactctcccaacacagcag 897  
Db 798 aatagtggcagcaataaacgcgagggatatacccttaggaaacagctccaatcaagttag 857  
Qy 898 ccactgggacctcggcagtcgcttttcttctgctggaactgcatctacacacatagggta 957  
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Qy 958 tgggaatatgtctccgagcactgaaggagggcaaaatcttcttattttatatgcatctt 1017  
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Qy 1018 tggaaatccactcttgggttcttcttattgctggaattggagaccacttggaaacctt 1077  
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Qy 1378 ctttcagctgtcctcagtcagtcagtcagtcagtcagtcagtcagtcagtcagtcagtc 1437  
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Qy 1558 caccat 1563  
Db 1515 atccgt 1520

## RESULT 3

US-09-236-080-3

; Sequence 3, Application US/09236080

; Patent No. 6242217

; GENERAL INFORMATION:

; APPLICANT: Helen Meadows

; APPLICANT: Conrad Chapman

; TITLE OF INVENTION: No. 6242217el Compounds

; FILE REFERENCE: GP30031

; CURRENT APPLICATION NUMBER: US/09/236,080





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## RESULT 7

US-08-232-463-14  
; Sequence 14, Application US/08232463  
; Patent No. 5670367  
; GENERAL INFORMATION:  
; APPLICANT: DORNER, F.  
; APPLICANT: SCHEIFLINGER, F.  
; APPLICANT: FALKNER, F. G.  
; TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS  
; NUMBER OF SEQUENCES: 52  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500  
; CITY: Alexandria  
; STATE: VA  
; COUNTRY: USA  
; ZIP: 22313-0299  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/232,463  
; FILING DATE:  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US/07/935,313  
; FILING DATE:  
; APPLICATION NUMBER: EP 91 114 300.6  
; FILING DATE: 26-AUG-1991  
; ATTORNEY/AGENT INFORMATION:  
; NAME: BENT, Stephen A.  
; REGISTRATION NUMBER: 29,768  
; REFERENCE/DOCKET NUMBER: 30472/114 IMMU  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703)836-9300  
; TELEFAX: (703)683-4109  
; TELEX: 899149  
; INFORMATION FOR SEQ ID NO: 14:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 7218 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; IMMEDIATE SOURCE:  
; CLONE: pt2gpt-F1s

## US-08-232-463-14

Query Match 3.6%; Score 74.8; DB 1; Length 7218;  
Best Local Similarity 5.4%; Pred. No. 9.6e-11;  
Matches 22; Conservative 236; Mismatches 148; Indels 0; Gaps 0;  
QY 15 actgaaggagtagaagctgagctgacactgcagctggcctctccctagccagccttc 74  
Db 1021 ACAGAAATTAATCCGAGCTTGCTGCAGGTCGAGGAGCTTGCATATTTTTTTTTT 1080  
QY 75 aggtcgcgcacgccttaacctgcgcgcacgccttttgggaagcagcttggtcttccatc 134  
Db 1081 YY 1140  
QY 135 tcccaagcctctcctcctcctcctcctcctcctcctcctcctcctcctcctcctt 194  
Db 1141 YY 1200  
QY 195 ccacgcggcgccgc 254  
Db 1201 YY 1260  
QY 255 ctccccaagtaataatttccacactgtcttttctgggttctccacgagccagctcc 314  
Db 1261 YY 1320  
QY 315 aaggtcctccacatccgcgaattgtttgtgactgctaaacgcgagcgtgtaaagct 374  
Db 1321 YY 1380  
QY 375 tgaggacttattatttgggttcttttcttcttcttcttcttcttcttcttcttctt 420  
Db 1381 YY 1426

## RESULT 8

US-08-332-312-1  
; Sequence 1, Application US/08332312  
; Patent No. 5559026  
; GENERAL INFORMATION:  
; APPLICANT: Price, Laura A.  
; APPLICANT: Pausch, Mark H.  
; TITLE OF INVENTION: Functional Expression of a Drosophila  
; TITLE OF INVENTION: Melanogaster Putative Potassium Channel in Yeast  
; NUMBER OF SEQUENCES: 4  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: American Cyanamid Company  
; STREET: One Cyanamid Plaza  
; CITY: Wayne  
; STATE: New Jersey  
; COUNTRY: US  
; ZIP: 07470-8426  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/332,312  
; FILING DATE:  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Harrington, James J.  
; REGISTRATION NUMBER: P-38,711  
; REFERENCE/DOCKET NUMBER: 32,421  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 201-831-3246  
; TELEFAX: 201-831-3305  
; INFORMATION FOR SEQ ID NO: 1:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 2441 base pairs  
; TYPE: nucleic acid











---

GenCore version 4.5  
Copyright (c) 1993 - 2000 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: September 21, 2002, 05:43:19 ; Search time 2190.54 Seconds  
(without alignments)  
12723.444 Million cell updates/sec

Title: US-09-729-920-1

Perfect score: 2065

Sequence: 1 ggacactgacatggactgaa.....tactgaagacagaactaa 2065

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 13736207 seqs, 6748477542 residues

Total number of hits satisfying chosen parameters: 27472414

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

EST:\*

1: em\_estba:\*\*  
2: em\_esthum:\*\*  
3: em\_estin:\*\*  
4: em\_estinu:\*\*  
5: em\_estov:\*\*  
6: em\_estpl:\*\*  
7: em\_estro:\*\*  
8: em\_htc:\*\*  
9: gb\_est1:\*\*  
10: gb\_est2:\*\*  
11: gb\_htc:\*\*  
12: gb\_gss:\*\*  
13: em\_gss\_hum:\*\*  
14: em\_gss\_inv:\*\*  
15: em\_gss\_pln:\*\*  
16: em\_gss\_vrt:\*\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	696.4	33.7	960	10	BI669964 603294474
2	634.8	30.7	1360	11	AK019376 Mus muscu
3	516.2	25.0	680	9	BI128596 BI128596
4	476.8	23.1	552	9	AW784769 115015 MA
5	475.4	23.0	636	9	BB659274 BB659274
6	453	21.9	1103	11	AK006295 Mus muscu
7	386.8	18.7	645	9	BB622028 BB622028
8	358.4	17.4	680	9	BB649994 BB649994
9	193.8	9.4	401	9	AA64375 zx81d11.r
10	173.4	8.4	689	9	BB641499 BB641499
11	171.6	8.3	1089	12	CNS044VV AL274612 Tetraodon
12	164.2	8.0	283	9	BB304952 BB304952
13	163.2	7.9	723	12	CNS055BR AL321840 Tetraodon
14	156.8	7.6	923	10	BF569718 602186245
15	150	7.3	593	9	AI073392 ov46a03.x
16	147.8	7.2	922	10	BI758226 603029871
17	137.4	6.7	519	10	BF191397 238973 MA

18	136	6.6	521	10	BF193457
19	136	6.6	531	10	BF191393
20	134	6.5	590	10	BE981482
21	134	6.5	598	12	AZ406369
22	134	6.5	609	9	AU177116
23	132.4	6.4	593	10	BE981393
24	128	6.2	376	9	BE185995
25	127.8	6.2	648	10	BM426281
26	123.4	6.0	612	12	B65883
27	122.2	5.9	622	10	BF739947
28	117.8	5.7	469	10	BF565047
29	114.4	5.5	2128	11	AK014626
30	113.8	5.5	665	9	BB628772
31	112.8	5.5	484	12	AQ078760
32	106.2	5.1	903	12	CNS0209Q
33	104	5.0	676	9	AI956397
34	101.2	4.9	433	9	AW141778
35	100.4	4.9	586	10	BE680493
36	99.6	4.8	892	9	AL537214
37	99.4	4.8	839	10	BI656440
38	97.8	4.7	563	10	BI066457
39	97.6	4.7	248	9	AV040667
40	93.8	4.5	436	9	AI816233
41	93.6	4.5	242	9	AV042781
42	91.6	4.4	629	10	BJ007058
43	91.6	4.4	882	10	BG919070
44	91.2	4.4	655	10	BG017630
45	90.8	4.4	857	10	BI157909

#### ALIGNMENTS

RESULT 1  
BI669964  
LOCUS 603294474F1 NIH\_MGC\_96 Homo sapiens cDNA clone IMAGE:5313738 5', linear EST 12-SEP-2001  
DEFINITION mRNA sequence.  
ACCESSION BI669964  
VERSION BI669964.1 GI:15584197  
KEYWORDS EST.  
SOURCE human.  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 960)  
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>  
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)  
JOURNAL Unpublished (1999)  
COMMENT Contact: Robert Strausberg, Ph.D.  
Email: [cgapbs-remail.nih.gov](mailto:cgapbs-remail.nih.gov)  
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.  
CDNA Library Preparation: Michael J. Brownstein (NHGRI), Shiraki Toshiyuki and Piero Carninci (RIKEN)  
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
DNA Sequencing by: Incyte Genomics, Inc.  
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:  
<http://image.llnl.gov>  
Plate: LLAM11795 row: c column: 19  
High quality sequence stop: 736.  
Location/Qualifiers  
1. 960  
/organism="Homo sapiens"  
/db\_xref="taxon:9606"  
/clone="IMAGE:5313738"  
/clone\_lib="NIH\_MGC\_96"  
/tissue\_type="hypothalamus"  
/lab\_host="DH10B"  
/note="Organ: brain; Vector: pBluescriptR (modified pBluescript KS+); Site\_1: BamHI; Site\_2: SalI-XhoI (gtcgag); Oligo-dr primed using primer 5'-TTTTTTTTTTTTTTVN-3', size-selected for average insert size 2.3 kb and

normalized to ROT 5. This is a primary library enriched for full-length clones and constructed using the Cap-trapper method (Carninci, in preparation). Library constructed by M. Brownstein (NIMH/NHGRI, National Institutes of Health). Note: this is a NIH\_MGC Library."

BASE COUNT  
ORIGIN

252 a 249 c 278 g 181 t

Query Match 33.7%; Score 696.4; DB 10; Length 960;  
Best Local Similarity 97.2%; Pred. NO. 6.le-153;  
Matches 762; Conservative 0; Mismatches 16; Indels 6; Gaps 5;

QY 1280 ggccttggtgatttggcaggggaaacgctggcatcaattatcgggagtggtataag 1339  
|||||  
Db 4 GCCTTGCTGATTTTGGCAGGGGNAACCTGGCATCAATTATCGGAGTGGTATAAG 63  
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QY 1340 cccctagtggtttggatccctgttgcttgctactttgcagctgtcctcagtatg 1399  
|||||  
Db 64 CCCTAGTGTGG-TTTGGATCCTTTGGCCTTGCCCTACTTTGCAGCTGTCTCAGTATG 122  
|||||

QY 1400 atcggagattggctaggggttctccaaaagacaaaagagagtggtgaaatcaag 1459  
|||||  
Db 123 ATCGGAGATTGGCTACGGGTCTGTCCAAAAGACAAAAGAGGTGGTGAATCAAG 182  
|||||

QY 1460 gcccatggcagagtggaaggccaatgtcacggctgagttccggggagacacgcccgaag 1519  
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Db 183 GCCCATGCGCAGAGTGAAGGCCAATGTCACGCTGAGTTCCGGAGACACGCCGAAG 242  
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QY 1520 ctaagctggagatccaagtaagctgacggggcgccaccatcccgagcatggagcgc 1579  
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Db 243 CTCAGCTGGAGATCCACGATAAGTGCAGCGGGACGCCACCATCCGACGATGAGCGC 302  
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QY 1580 cggcggctggcctgacacgagggccactcactgacatgctgtcccccagagaagcgc 1639  
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Db 303 CGCGGCTGGCCTTGGACAGCGGCCCACTCACTGTGACATGCTGTCCCCGAGAGCGC 362  
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QY 1640 tctgttcttctgctccctggacacggcgcttcaaggcctcctccaggagagacataac 1699  
|||||  
Db 363 TCTGTCTTTGCTGCTTGGACACCGCGCGCTTCAAGSCCTCATCCAGAGAGACATCAAC 422  
|||||

QY 1700 aaccggcccaaacacttgccctgaaggggcgaggagcgtgaacagcattggcgagggt 1759  
|||||  
Db 423 AACCGGCCCAACACCTGCGCCCTGAAGGGCGGAGCAGCTGAACAGCATGGCGCAGGT 482  
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QY 1760 gcgtccgaggacaacatcatacaagttcgggtccacctccagactcaccagagagaaa 1819  
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Db 483 CGGTCCGAGGACACATCATCAACAGTTCCGGTCCACCTCCAGACTCACCAAGAGAAA 542  
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QY 1820 acaaggacctcaaaagaccttggccgagagcgttccagaaaaatctacaagaccttccgg 1879  
|||||  
Db 543 AACAAAGACCTCAAAAAGACCTTGCCCGAGGAGCTTCAGAAAAATCTACAAGACCTTCCGG 602  
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QY 1880 aattactcctgacgagagaagaagagagaaacgaa-aagatgtgaactcaga 1938  
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Db 603 AATTACTCCTTGACGAGGAGAGAAAGAGGAGAGAGCAAGAAATGTGTAACTCAGA 662  
|||||

QY 1939 caactccagcacagcctatgct--gacggactgtatccagcagcagcagcgtgagttggagaac 1996  
|||||  
Db 663 CAATCCAGCACGCCATGCTTGACGGAATGTATCCAGCAGCACGCTGATGTGGAGAAC 722  
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QY 1997 ggaatgatccccgagacacaaagccggagccggagagaaacacttacttgagac 2056  
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Db 723 GGAATGATTTCCCGGACCCCAAGACC-GGAGCCGGAGAAC-ACTCCTTACTTGGAGAC 780  
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QY 2057 agaa 2060  
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Db 781 GAAA 784  
|||

RESULT 2

AK019376

LOCUS

1360 bp mRNA linear HTC 19-JAN-2002

#### DEFINITION

Mus musculus 12 days embryo head cDNA, RIKEN full-length enriched library, clone.3010005K24:homolog to POTASSIUM CHANNEL SUBFAMILY K MEMBER 10 (OUTWARD RECTIFYING POTASSIUM CHANNEL PROTEIN TREK-2) (TREK-2 K+ CHANNEL SUBUNIT), full insert sequence.

#### ACCESSION VERSION KEYWORDS SOURCE

AK019376

AK019376.1 GI:12859546

HTC; CAP trapper.

Mus musculus (strain:C57BL/6J) 12 days embryo head cDNA to mRNA,

clone.lib:RIKEN full-length enriched mouse cDNA library

clone:3010005K24.

#### ORGANISM

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

#### REFERENCE

1 (sites)

Carninci, P., and Hayashizaki, Y.

High-efficiency full-length cDNA cloning

Meth. Enzymol. 303, 19-44 (1999)

99279253

10349636

#### PUBMED

#### REFERENCE

2 (sites)

Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K.,

Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y.

Normalization and subtraction of cap-trapper-selected cDNAs to

prepare full-length cDNA libraries for rapid discovery of new genes

Genome Res. 10 (10), 1617-1630 (2000)

20499374

11042159

#### PUBMED

#### REFERENCE

3 (sites)

Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P.,

Konno, H., Akiyama, J., Nishi, K., Kitsuai, T., Tashiro, H., Itoh, M.,

Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A.,

Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K.,

Fujiwaka, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M.,

Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J.,

Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y.

RIKEN integrated sequence analysis (RISA) system--384-format

sequencing pipeline with 384 multicapillary sequencer

Genome Res. 10 (11), 1757-1771 (2000)

20530913

11076861

#### PUBMED

#### REFERENCE

4 (sites)

The RIKEN Genome Exploration Research Group Phase II Team and the

FANTOM Consortium.

Functional annotation of a full-length mouse cDNA collection

Nature 409, 685-690 (2001)

5 (bases 1 to 1360)

Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A.,

Arakawa, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C.,

Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T.,

Hara, A., Hayatsu, N., Hill, D., Hiramoto, K., Hiraoka, T., Hori, F.,

Hume, D., Imotani, K., Ishii, Y., Itoh, M., Izawa, M., Kasukawa, T.,

Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S.,

Kurthara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K.,

Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J.,

Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D.,

Schröml, L., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T.,

Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F.,

Tanaka, T., Tejima, Y., Toya, T., Yamamura, T., Yamanaka, I.,

Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and

Hayashizaki, Y.

#### Direct Submission

Submitted (18-AUG-2000) Yoshihide Hayashizaki, The Institute of

Physical and Chemical Research (RIKEN), Laboratory for Genome

Exploration Research Group, RIKEN Genomic Sciences Center (GSC),

RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama,

Kanagawa 230-0045, Japan (E-mail: genome-res@gsc.riken.go.jp,

URL: http://genome.gsc.riken.go.jp/, Tel: 81-45-503-9222,

Fax: 81-45-503-9216)

Please visit our web site (http://genome.gsc.riken.go.jp/) for

further details.

cDNA library was prepared and sequenced in Mouse Genome

Encyclopedia Project of Genome Exploration Research Group in Riken

Genomic Sciences Center and Genome Science Laboratory in RIKEN.

#### COMMENT







Email: smith@email.marc.usda.gov  
 Single pass sequencing. Bases called and alt\_trimmed with phred  
 v0.980904.e. Vector identified by cross\_match with the -minscore 18  
 and -minmatch 12 options.  
 PCR PRimers

FORWARD: AGGAACAGCTATGACCAT  
 BACKWARD: GTTTCCTCAGTCAGGAG  
 Plate: 43 row: M column: 16  
 Seq primer: ATTAGGTGACACTATAG.

## FEATURES

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 /clone\_lib="MARC lpiG"  
 /tissue\_type="pooled"  
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 /note="Vector: PCMV SPORT6; Site\_1: XbaI; Site\_2: XhoI;  
 Library made from pooled tissue from day 11, 13, 15, 20,  
 and 30 embryos."

BASE COUNT 144 a 162 c 176 g 70 t  
 ORIGIN

Query Match 23.1%; Score 476.8; DB 9; Length 552;  
 Best Local Similarity 91.5%; Pred. No. 2.2e-101;  
 Matches 505; Conservative 0; Mismatches 47; Indels 0; Gaps 0;

QY 1399 gatcgagattgctacgggttctgtccaaaagacaaagaagagtggtggaatcaa 1458  
 DB 1 GATCGGAGATTGCTACGGGTTCTATCCAAAAGACAAAAGAGAGTGGTGAGATCAA 60  
 QY 1459 ggccttcgctgagtggaagcgaatgctacgctgagttccggagacacgcggaag 1518  
 DB 61 GGCCTCAGCGCGCGATGTGAGAGCCACGCTGACGCGCGGAGTTTCGGAGACGCGCGCGG 120  
 QY 1519 gctcagcttgagatccacgataagctgcagcggggcgccaccatccgcagcatgagcg 1578  
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 QY 1579 ccggcgctggcctgagacagcgcccgccactcaactggacatgcttcccccgagaagcg 1638  
 DB 181 CCGCGCCTGGGCGCTGGACAGAGGGGCCCACTCGCTCGACATGCTCTCCCGGAGAGCG 240  
 QY 1639 ctctgtcttctgctgccttgacacggcgctcgaagcctcaccagagagcatcaa 1698  
 DB 241 CTCGCTTCGCGCGCTGGACGCGCGCGCTTCAGGCGCTCTGCCAGGAGAGCATCAA 300  
 QY 1699 caaccggcccaacaacctgcgctgaagggcgcgagcagctgaacaagaatggcgaggg 1758  
 DB 301 CAACCGGCCCAACAACCTGCGCCTGCAGGGGTCCGAGCAGCTGAACAAACACGCGCAGGG 360  
 QY 1759 tgcgtccgaggaacaacatcatacaagaagtcgggtccacctccagactcaccagaaggaa 1818  
 DB 361 GGCTCGGAGGAAACATCATCAACAAGTTCGGGTCCACCTCCAGGCTCACCAGAGGAA 420  
 QY 1819 aaacaaggacctcaaaaagacctgcccagagcagcttcagaaaatcataagacctccg 1878  
 DB 421 AAACAAGGACCTCAANAAGACCTTGCCCGAGGACGTGCAAAAGATCTACAAGACTTCCG 480  
 QY 1879 gaattactcctgagcagagagaagaagaggagggaagaaagatgtgtaactcaga 1938  
 DB 481 GAACTACTCCTCGATGAGGAGAAGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 540  
 QY 1939 caactccagac 1950  
 DB 541 TCACCTCGAGCAC 552

RESULT 5  
 BB659274 636 bp mRNA linear EST 26-OCT-2001  
 LOCUS BB659274  
 DEFINITION BB659274 RIKEN full-length enriched, 13 days embryo heart Mus musculus cDNA clone D330028P16 5', mRNA sequence.

## ACCESSION

BB659274

VERSION BB659274.1 GI:16493096

## KEYWORDS

EST.

## SOURCE

house mouse.

## ORGANISM

Mus musculus

## REFERENCE

1 (bases 1 to 636)

## AUTHORS

Arakawa, T., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hiramoto, K., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Matsuyama, T., Miyazaki, A., Nomura, K., Ohno, M., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y.

## TITLE

RIKEN Mouse ESTs (Arakawa, T., et al. 2001)

## JOURNAL

Unpublished (2001)

## COMMENT

Contact: Yoshihide Hayashizaki

Laboratory for Genome Exploration Research Group, RIKEN Genomic

Sciences Center (GSC), Yokohama Institute

The Institute of Physical and Chemical Research (RIKEN)

1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan

Tel: 81-45-503-9222

Fax: 81-45-503-9226

Email: genome-res@gsc.riken.go.jp,

URL: http://genome.gsc.riken.go.jp/

Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh

, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y.

Normalization and subtraction of cap-trapper-selected cDNAs to

prepare full-length cDNA libraries for rapid discovery of new

genes. Genome Res. 10 (10), 1617-1630 (2000)

Wagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E.,

Watanishi, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura

, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and

Hayashizaki, Y.

RIKEN integrated sequence analysis (RISA) system--384-format

sequencing pipeline with 384 multicapillary sequencer. Genome Res.

10 (11), 1757-1771 (2000)

Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara

, Y. and Hayashizaki, Y.

Computer-based methods for the mouse full-length cDNA

encyclopedia: real-time sequence clustering for construction of a

nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001)

Kondo, S., Shinagawa, A., Saito, T., Kiyosawa, H., Yamanaka, I., Aizawa

, K., Fukuda, S., Hara, A., Itoh, M., Kawai, J., Shibata, K. and

Hayashizaki, Y.

Computational Analysis of Full-Length Mouse cDNAs Compared with

Human Genome Sequences. Mamm. Genome. 12, 673-677 (2001)

Please visit our web site (http://genome.gsc.riken.go.jp) for

further details.

e mouse tissues.

## FEATURES

source

1..636

/organism="Mus musculus"

/db\_xref="taxon:10090"

/clone="D330028P16"

/clone\_lib="RIKEN full-length enriched, 13 days embryo

heart"

/tissue\_type="heart"

/dev\_stage="13 days embryo"

/lab\_host="DH10B"

/note="Site\_1: SalI; Site\_2: BamHI; cDNA library was

prepared and sequenced in Mouse Genome Encyclopedia

Project of Genome Exploration Research Group in Riken

Genomic Sciences Center and Genome Science Laboratory in

RIKEN. Division of Experimental Animal Research in Riken

contributed to prepare mouse tissues. 1st strand cDNA was

primed with a primer [5'

GAGAGAGAGCGCGCAACTCGAGTTTTTTTTTTTTTTTNN 3'], cDNA was

prepared by using trehalose thermo-activated reverse

transcriptase and subsequently enriched for full-length by

cap-trapper. Second strand cDNA was prepared with the

primer adapter of sequence [5'





transcriptase and subsequently enriched for full-length by cap-trapper. cDNA went through one round of normalization to Rot = 10.0 and subtraction to Rot = 100.0. Second strand cDNA was prepared with the primer adapter of sequence [5' GAGAGAGATTCGAGTTAATAATATCCGCCCCCCCCC 3']. cDNA was cloned into the XhoI and BamHI sites. Vector: a modified pBluescript KS(+) after bulk excision from Lambda FLC I. Cloning sites, 5' end: Sali; 3' end: BamHI

BASE COUNT	141 a	179 c	173 g	147 t	5 others
ORIGIN					
Query Match	18.7%; Score 386.8; DB 9; Length 645;				
Best Local Similarity	83.1%; Pred. No. 3.4e-80;				
Matches	481; Conservative 0; Mismatches 77; Indels 21; Gaps 3;				
Qy	493	tccgcagcaccggtgtgcccagccagcgcactaacgggcaacccccggctcc	552		
Db	86	TGCAGCAGCCGCCAGCGTGCACGCCAAGAGTGCCACTAACGGGCATCACCTGTTC	145		
Qy	553	ggctccgactccactccgcgcctgtccattctcccgagccacagtggtgagccagat	612		
Db	146	T-----CGACTCTCCATTCCTCTCGACCCAGGTGTGTAGCCAGGAT	187		
Qy	613	ggaaggaaccccccaggggcttgacagccgtcatgaagtggagacagtggtggtccat	672		
Db	188	GGAAGGCCCTCCCGAGGAGCGCTGCAACACAGTATGAAGTGGAACACAGGTGGCAT	247		
Qy	673	otttggtgtgtggttcacctgttcactgctcactgctggtggtggtggtggtggt	732		
Db	248	CTTCGTGG-GGTGCTGTACCTCGTACCTGCTGCTGCTGCTGCTGCTGCTGCTG	306		
Qy	733	gcccttgagagcagcagagaataccatcccttgagagcagcagcagcagcagcag	792		
Db	307	CCCCCTCAGAGCAGTCAAGAACACACANTCCCTTGAGAGAGGCAGAAATCTTGAGAGA	366		
Qy	793	tcattgtgtgtgagccccaggagctggagacgttgatccagcagatgctcttgatgctga	852		
Db	367	TCACATCTGTGTAGTCCCGAGGAACATAGAGACACTGATTCAGCATGCACATCGATCTGA	426		
Qy	853	caatcgaggagtcagtcacataggaactctccaaacagcagcagcagcagcagcag	912		
Db	427	TAAAGCGGAGTCAAGCCAGTAGGAATCTCTCAACAGCAGCAGTCACTGGGACCTGG	486		
Qy	913	cagtgcttttcttctgctgaactgctcattacgacacatggtatgggaattatgctcc	972		
Db	487	AAGTGCCTCTCTTCTGCTGGCAGCAGTCATCACAAACCATAGGGATGCGAATATGTCTCC	546		
Qy	973	gagcactgaaggaggaacaaatcttttcttatttatgccaatttgggaattccactctt	1032		
Db	547	GAGCACTGAAGGAGCAAAATCTTTTGTATTTATATGCCATCTTTGGGATCCCGCNTTT	606		
Qy	1033	tggttt--cttatgctggaattggagacaaacttga	1069		
Db	607	TGTGTTCTTATTGGCTGGAATNGGAGACCNACTNGNA	645		

RESULT 8  
LOCUS BB649994 680 bp mRNA linear EST 26-OCT-2001  
DEFINITION BB649994 RIKEN full-length enriched, 0 day neonate cerebellum Mus musculus cDNA clone C230015H11 5', mRNA sequence.  
ACCESSION BB649994  
VERSION BB649994.1 GI:16484249  
KEYWORDS EST.  
SOURCE house mouse.  
ORGANISM Mus musculus  
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
AUTHORS Arakawa,T., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hiramoto,K., Hori,F., Ishii,Y., Ito,M., Kawai,T., Konno,H., Kouda

M., Koya,S., Matsuyama,T., Miyazaki,A., Nomura,K., Ohno,M., Okazaki,Y., Okido,T., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F., Takeda,Y., Tanaka,T., Toya,T., Muramatsu,M. and Hayashizaki,Y.  
RIKEN Mouse ESTs (Arakawa,T., et al. 2001)  
Unpublished (2001)  
Contact: Yoshihide Hayashizaki  
Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute  
The Institute of Physical and Chemical Research (RIKEN)  
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan  
tel: 81-45-503-9222  
Fax: 81-45-503-9216  
Email: genome-res@gsr.riken.go.jp/  
URL: http://genome.gsc.riken.go.jp/  
Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.  
Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10 (10), 1617-1630 (2000)  
wagi,K., Fujiwaka,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y.  
RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multipillar sequencer. Genome Res. 10 (11), 1757-1771 (2000)  
Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara,Y. and Hayashizaki,Y.  
Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001)  
Kondo,S., Shinagawa,A., Saito,T., Kiyosawa,H., Yamanaka,I., Aizawa,K., Fukuda,S., Hara,A., Itoh,M., Kawai,J., Shibata,K. and Hayashizaki,Y.  
Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences. Mamm. Genome. 12, 673-677 (2001)  
Please visit our web site (http://genome.gsc.riken.go.jp) for further details.  
e mouse tissues.  
Location/Qualifiers  
1. 680  
/organism="Mus musculus"  
/db\_xref="taxon:10090"  
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/lab\_host="DH10B"  
/note="Site:1: Sali; Site:2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was primed with a primer [5' GAGAGAGATTCGAGTTAATAATATCCGCCCCCCCCC 3']. cDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. cDNA went through one round of normalization to Rot = 20.0 and subtraction to Rot = 479.0. Second strand cDNA was prepared with the primer adapter of sequence [5' GAGAGAGATTCGAGTTAATAATATCCGCCCCCCCCC 3']. cDNA was cleaved with XhoI and BamHI. Vector: a modified pBluescript KS(+) after bulk excision from Lambda FLC I."

BASE COUNT 149 a 187 c 179 g 163 t 2 others  
ORIGIN  
Query Match 17.4%; Score 358.4; DB 9; Length 680;









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Db   314 ACAACGAGCAGGGGCAG 333

RESULT 14
BF569718      923 bp    mRNA       linear     EST 12-DEC-2000
LOCUS        602186245F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310506 5' ,
DEFINITION   mRNA sequence.
ACCESSION    BF569718
KEYWORDS     BF569718.1 GI:11643098
SOURCE       EST.
ORGANISM     human.

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Linehan
CDNA Library Preparation: Ling Hong/Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E Consortium/LLNL at:
http://Image.llnl.gov
Plate: LLCMI185 row: j column: 11
High quality sequence stop: 734.
Location/Qualifiers
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/clone_image=4310506"
/clone_lib="NIH_MGC_45"
/tissue_type="renal carcinoma (ascites)"
/note="DHI0B (phage-resistant)"
/note="Organ: kidney; Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GCACCAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: This is a NIH_MGC library."

BASE COUNT 245 a 197 C 238 G 243 T
ORIGIN

Query Match          7.6% Score 156.8; DB 10; Length 923;
Best Local Similarity 74.2%; Pred. No. 4.4e-26;
Matches 239; Conservative 0; Mismatches 77; Indels 6; Gaps 3;

Qy 1243 gtccattacttttggtggtcaactcgaccacggctgggcctttagtgttcaggagg 1302
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1 GGCCATTATTTGTGTTACTCTAACAACCTATGG--ATTGGTGACTACGTTGCCAGG 58

Qy 1303 gggaacgcctggcatcaattcsggagtggtaagaagcccctagtgtggtttgatccct 1362
|||| | ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 59 TGGAATCGAT---ATTGAATCTGGAACTTCTATAAGCCCTGTCGTGTGGTTCGGATCCT 115

Qy 1363 tgttgacctgccactttgcagctgtccctcagtatgatcgagattggctaaggggtct 1422
|||| | ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 116 TGTAGGCTTGCTTAC TTGCTGTGCTGCTCCGTCAGCATCA TTGGAGA-TGGCTCCAGTGAT 174

Qy 1423 gtcacaagaacaaaaaaagagggtgggtgaaaatacaaagccccatcgcgagatggaaagcc 1482
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 175 ATCTAAAAAACAAAAGAGGTGGGAGAGTTTCAGAGCACACGCTGCTGAGTGGCAGC 234

Qy 1483 caatgtcacggctgagttccgggagacacggcgaagctcagcgtggagatccaacgataa 1542
|||| | ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 235 CAACGTCACAGCCGAATTC AAAAGAAACACGAGGCGCACTGAGTGTGGAGATTTATGCAA 294
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Qy 1543 gctgcagcggcgccaccaccatc 1564  
| | | | | | | | | | | | | | | | | | | |  
Db 295 GTTCAGCGGGCCACCTCCATC 316

## RESULT 15

AI073392 593 bp mRNA linear EST 27-AUG-1998  
LOCUS ov46a03.x1 Soares\_testis\_NHT Homo sapiens cDNA clone IMAGE:1640332  
DEFINITION 3' similar to TR:P97438 P97438 TWIK-1 RELATED POTASSIUM CHANNEL,  
SUBFAMILY K, MEMBER 2 ;, mRNA sequence.

ACCESSION AI073392 GI:3400036  
VERSION AI073392.1  
KEYWORDS EST.  
SOURCE human.

ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 593)  
AUTHORS NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.  
TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),  
Tumor Gene Index

JOURNAL Unpublished (1997)  
COMMENT Contact: Robert Strausberg, Ph.D.  
Email: cgapbs-r@mail.nih.gov  
cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima Bonaldo,  
, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.  
DNA Sequencing by: Washington University Genome Sequencing Center  
Clone distribution: NCI-CGAP clone distribution information can be  
found through the I.M.A.G.E. Consortium/LLNL at:  
[www-bio.llnl.gov/bbrp/image/image.html](http://www-bio.llnl.gov/bbrp/image/image.html)  
Insert length: 1154 Std Error: 0.00  
Seq primer: -40m13 fwd. Ef from Amersham  
High quality sequence stop: 459.

## FEATURES

source

1..593  
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/clone="IMAGE:1640332"  
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/note="vector: pT73D-Pac (Pharmacia) with a modified  
polylinker; Site 1: Not I; Site 2: Eco RI; 1st strand cDNA  
was prepared from mRNA obtained from Clontech Laboratories  
, Inc., and primed with a Not I - oligo(dT) primer [5'  
TGTACCAATCTGAAGGGAGGCGGCCCAATTTTTTTTTTTT 3'].  
Double-stranded cDNA was ligated to Eco RI adaptors  
(Pharmacia), digested with Not I and cloned into the Not I  
and Eco RI sites of the modified pT73 vector. Library  
went through one round of normalization to Cot5 and was  
constructed by Bento Soares and M. Fatima Bonaldo."

BASE COUNT 162 a 110 c 138 g 183 t  
ORIGIN

Query Match 7.3%; Score 150; DB 9; Length 593;  
Best Local Similarity 96.8%; Pred. No. 1.5e-24;  
Matches 153; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 1292 ttgtggcaggggaaacgctggcatcaattatcgaggagtggtataagccctagtgtgg 1351  
| | | | | | | | | | | | | | | | | | | |

Db 393 TTGTTTTCAGGGGAAACGCTGGCATCAATTATCGGGAGTGGTATAAGCCCTAGTGTGG 452  
| | | | | | | | | | | | | | | | | | | |

Qy 1352 ttgtggtacctgttggtgcttgcctactttgcagctgtcctcagtatgatcggagattgg 1411  
| | | | | | | | | | | | | | | | | | | |

Db 453 TTTTGGATCCCTGTGTGGCTTGGCTACATTTCAGCTGTCTCAGTATGATCGGAGATTGG 512  
| | | | | | | | | | | | | | | | | | | |

Qy 1412 ctacgggttcctgcaaaacacaaagagagattggg 1449  
| | | | | | | | | | | | | | | | | | | |

Db 513 CTACGGGTTCGTCCAAAAGACAAAGAGAGGTAGG 550  
| | | | | | | | | | | | | | | | | | | |

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GenCore version 4.5  
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: September 21, 2002, 08:33:09 ; Search time 64.01 Seconds  
(without alignments)  
942.245 Million cell updates/sec

Title: US-09-729-920-2

Perfect score: 2795

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Gapop 10.0 , Gapext 0.5

Searched: 747574 seqs, 111073796 residues

Total number of hits satisfying chosen parameters: 747574

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Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1630	58.3	383	22	ABG02731 Novel human diagno
2	1412.5	50.5	557	22	ABG08305 Novel human diagno
3	1251.5	44.8	411	21	AAE10342 Murine TREK-1 pota
4	1248.5	44.7	411	20	AA128497 Mouse h-TREK1 poly
5	1247.5	44.6	370	20	AA130648 A mechanically sen
6	1243	44.5	411	21	AAE10341 Human TREK-1 potas
7	1242.5	44.5	411	20	AA134133 Human potassium ch
8	1242.5	44.5	411	20	AA128496 h-TREK1 polypeptid
9	1242.5	44.5	411	22	AA150044 Human TREK. Homo
10	1218.5	43.6	426	22	AAU07618 Human potassium io
11	1218.5	43.6	426	22	AAU07622 Human potassium io

12	1214.5	43.5	426	22	AAU07623 Human potassium io
13	1210.5	43.3	426	22	AAU07624 Human potassium io
14	1210.5	43.3	426	22	AAU07625 Human potassium io
15	822.5	29.4	1314	22	AAU04571 Human G-protein co
16	812.5	29.1	393	21	AA194425 Human h-TRAAK poly
17	812.5	29.1	393	21	AA194426 Human h-TRAAK poly
18	812.5	29.1	393	22	AA194426 Human mechanically
19	790	28.3	398	20	AA130647 A mechanically sen
20	774	27.7	155	22	AA130647 Human EST encoded
21	607.5	21.7	421	22	AA130647 Human K channel TR
22	483.5	17.3	511	22	ABG26753 Novel human diagno
23	483	17.3	499	21	AA190356 Human TWIK-2 prote
24	483	17.3	499	21	AA190356 Human potassium ch
25	483	17.3	499	21	AA190356 Human protein clon
26	483	17.3	499	22	AAE01026 Human TWIK-2 prote
27	447	16.0	107	20	AA128498 Partial h-TREK1 po
28	403	14.4	336	18	AAW23397 TWIK-1 potassium c
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31	396	14.2	332	21	AA190354 Human TWIK-3 prote
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33	361	12.9	361	22	AA131805 Amino acid sequenc
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35	352	12.6	400	22	AAE10679 Murine TASK potass
36	349.5	12.5	394	21	AAE10343 Human potassium ch
37	349.5	12.5	394	21	AA190354 Human signal pepti
38	349.5	12.5	394	21	AA190354 Human TWIK-6 (E 16
39	344	12.3	400	22	AAE10678 Amino acid sequenc
40	334	11.9	374	21	AA18807 Protein encoded by
41	334	11.9	374	21	AA18813 Amino acid sequenc
42	334	11.9	374	22	AA190356 Human potassium ch
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44	333.5	11.9	313	20	AA125116 Human TWIK-4 prote
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ALIGNMENTS

RESULT 1  
ABG02731  
ID ABG02731 standard; Protein; 383 AA.  
XX  
AC ABG02731;  
XX  
DT 13-FEB-2002 (first entry)  
XX  
DE Novel human diagnostic protein #2722.  
XX  
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;  
KW food supplement; medical imaging; diagnostic; genetic disorder.  
XX  
OS Homo sapiens.  
XX  
PN WO200175067-A2.  
XX  
PD 11-OCT-2001.  
XX  
PF 30-MAR-2001; 2001WO-US08631.  
XX  
PR 31-MAR-2000; 2000US-0540217.  
PR 23-AUG-2000; 2000US-0649167.  
XX  
XX (HYSE-) HYSEQ INC.  
XX  
PI Drmanac RT, Liu C, Tang YT;  
XX  
DR WPI; 2001-639362/73.  
XX  
N-PSDB; AAS66918.  
XX  
PT New isolated polynucleotide and encoded polypeptides, useful in  
PT diagnostics, forensics, gene mapping, identification of mutations  
PT responsible for genetic disorders or other traits and to assess

PT biodiversity -  
XX  
PS Claim 20; SEQ ID No 33090; 103pp; English.  
XX  
XX The invention relates to isolated polynucleotide (I) and  
XX polypeptide (II) sequences. (I) is useful as hybridisation probes,  
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome  
CC and gene mapping, and in recombinant production of (II). The  
CC polynucleotides are also used in diagnostics as expressed sequence tags  
CC for identifying expressed genes. (I) is useful in gene therapy techniques  
CC to restore normal activity of (II) or to treat disease states involving  
CC (II). (II) is useful for generating antibodies against it, detecting or  
CC quantitating a polypeptide in tissue, as molecular weight markers and as  
CC a food supplement. (II) and its binding partners are useful in medical  
CC imaging of sites expressing (II). (I) and (II) are useful for treating  
CC disorders involving aberrant protein expression or biological activity.  
CC The polypeptide and polynucleotide sequences have applications in  
CC diagnostics, forensics, gene mapping, identification of mutations  
CC responsible for genetic disorders or other traits to assess biodiversity  
CC and to produce other types of data and products dependent on DNA and  
CC amino acid sequences. ABG00010-ABG30377 represent novel human  
CC diagnostic amino acid sequences of the invention.  
CC Note: The sequence data for this patent did not appear in the printed  
CC specification, but was obtained in electronic format directly from WIPO  
CC at ftp.wipo.int/pub/published\_pct\_sequences.  
XX  
XX Sequence 383 AA;  
XX  
XX Query Match 58.3%; Score 1630; DB 22; Length 383;  
XX Best Local Similarity 100.0%; Pred. No. 1.9e-139;  
XX Matches 317; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
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XX Db |||||  
XX QY 287 FVAGNAGINRYEWYPLVFWILVGLAYFAAVALSMIGDRLVLSKRTKEVGEIKAHAA 346  
XX Db |||||  
XX QY 127 fvagnaginyreywypkplwfwilvglayfaavlsimgdwlrvlskrtkeevgeikahaa 186  
XX Db |||||  
XX QY 347 EWKANTAEFRTRRLSVIEHDKLQRAATIRSMERRRGLDQRAHSLDMLSPKRSVFA 406  
XX Db |||||  
XX QY 187 ewkantaeftrrrrlsvieihdklqraatirsmerrrriqldqrahsldmlspekrsvfa 246  
XX Db |||||  
XX QY 407 ALDTGRFKASSQESINRPNLRLKGPOLNKHGQASDNIINKFGSTSRLLTKRNKDL 466  
XX Db |||||  
XX QY 467 KKTLPEDVQKIYKTFRNSYLSDEEKEETKMCNSDNTSMTLTDICQHAELNGMIPT 526  
XX Db |||||  
XX QY 307 kktlpdvqkiyktfrnsyldseekeetkmcnsdntstamitdciqghaelngmipt 366  
XX Db |||||  
XX QY 527 DTKDREPENNSLLEDRN 543  
XX Db |||||  
XX QY 367 dtkdrepennslledrn 383  
XX  
XX RESULT 2  
XX ID ABG08305  
XX AC ABG08305 standard; Protein; 557 AA.  
XX AC ABG08305;  
XX DT 13-FEB-2002 (first entry)  
XX DE Novel human diagnostic protein #8296.  
XX  
XX Human; chromosome mapping; gene mapping; gene therapy; forensic;  
XX food supplement; medical imaging; diagnostic; genetic disorder.  
XX OS Homo sapiens.  
XX

PN WO200175067-A2.  
XX 11-OCT-2001.  
XX 30-MAR-2001; 2001WO-US08631.  
XX 31-MAR-2000; 2000US-0540217.  
XX 23-AUG-2000; 2000US-0649167.  
XX (HYSE-) HYSEQ INC.  
XX Drmanac RT, Liu C, Tang YT;  
XX WPI; 2001-639362/73.  
XX N-PSDB; AA572492.  
XX  
XX New isolated polynucleotide and encoded polypeptides, useful in  
XX diagnostics, forensics, gene mapping, identification of mutations  
XX responsible for genetic disorders or other traits and to assess  
XX biodiversity -  
XX  
XX Claim 20; SEQ ID No 38664; 103pp; English.  
XX  
XX The invention relates to isolated polynucleotide (I) and  
XX polypeptide (II) sequences. (I) is useful as hybridisation probes,  
XX polymerase chain reaction (PCR) primers, oligomers, and for chromosome  
XX and gene mapping, and in recombinant production of (II). The  
XX polynucleotides are also used in diagnostics as expressed sequence tags  
XX for identifying expressed genes. (I) is useful in gene therapy techniques  
XX to restore normal activity of (II) or to treat disease states involving  
XX (II). (II) is useful for generating antibodies against it, detecting or  
XX quantitating a polypeptide in tissue, as molecular weight markers and as  
XX a food supplement. (II) and its binding partners are useful in medical  
XX imaging of sites expressing (II). (I) and (II) are useful for treating  
XX disorders involving aberrant protein expression or biological activity.  
XX The polypeptide and polynucleotide sequences have applications in  
XX diagnostics, forensics, gene mapping, identification of mutations  
XX responsible for genetic disorders or other traits to assess biodiversity  
XX and to produce other types of data and products dependent on DNA and  
XX amino acid sequences. ABG00010-ABG30377 represent novel human  
XX diagnostic amino acid sequences of the invention.  
XX Note: The sequence data for this patent did not appear in the printed  
XX specification, but was obtained in electronic format directly from WIPO  
XX at ftp.wipo.int/pub/published\_pct\_sequences.  
XX  
XX Sequence 557 AA;  
XX  
XX Query Match 50.5%; Score 1412.5; DB 22; Length 557;  
XX Best Local Similarity 72.4%; Pred. No. 2e-119;  
XX Matches 297; Conservative 2; Mismatches 18; Indels 93; Gaps 4;  
XX  
XX QY 227 RKQVSTKIRVISTILFLLAGCIVFTIPAVIFKYLEGWTALESYFVVVTLTTVGFQD 286  
XX Db |||||  
XX QY 148 qkkvsgtkirvistlflilagcivftipavifkylegwtalesyfvvvtlttvgf 207  
XX QY 287 FVAG-----GNAGINRYEWYPLVFWIL----- 310  
XX |||||  
XX QY 208 fvaahpsdhlcwvvtckgkylldpsqekatafsgvaqkrneppkplwclwrsypta 267  
XX QY 311 -----VGLAYFA-AVLSMIGDRLVLSKRTK 335  
XX Db |||||  
XX QY 268 lmmqervvxkekpaapnrrigiteklefzrxveaavavphavlsimgdwlrvlskrtk 327  
XX QY 336 EE-----VGEIKAHAAEWKANTAEFRTRRLSVIEHDKLQ 373  
XX |||||  
XX QY 328 eevcrpplfkpspnrlilgvahvgeikahaaekavtaeftrrrrlsvieihdklgr 387  
XX QY 374 AATIRSMERRRGLDQRAHSLDMLSPKRSVFAALDTGRFKASSQESINRPNLRLKGP 433  
XX Db |||||  
XX QY 388 aatirsmerrrriqldqrahsldmlspekrsvfaaltdgrfkassqesinnrpnrlkpg 447  
XX QY 434 EQLNKHGQASDNIINKFGSTSRLLTKRNKDLKTLPEOVQKIYKTFRNSYLSDEEKEE 493

Qy	201	GFLLAGIGDQLGTFPGKSIARVEKVPKKQVSOQTKIRVISTILFILAGCIVFTIIPAVIF	260
Db	171	gfllagvgdqlgtifgkigakvedtfikwnvsqtkirilstiifilfvcvlfvalpavif	230
Qy	261	KYIEGWTALIESIVFVVVYTLTVGVGDVFAGGNAGINREWKPLVWFILVGLAYFAAVL	320
Db	231	khiegwsaldaifyvltltifgdyvaag-sdieyldfykpvvfwilvglayfaavl	289
Qy	321	SMIGDWLRVLSKTKVEVGEIKAHAAEAKVANVTAEPRETRRLSVEIHDKLQRAATIRSM	380
Db	290	smigdwlrviskktkeevgefrahaaewtanvtaefketrriisvelydkfqratsv---	346
Qy	381	ERRRLGLDQRAHSLDMLSPKRSV	404
Db	347	-krklsaelagnhnqeitpcrrti	369
RESULT 4			
AA	Y28497		
ID	AA	Y28497 standard; Protein; 411 AA.	
XX	AA	Y28497;	
XX	DT	12-OCT-1999 (first entry)	
XX	XX	Mouse h-TREK1 polypeptide.	
DE	XX	h-TREK1; two pore potassium channel; inflammatory disease;	
KW	KW	chromosome 1q32.	
XX	XX	Mus musculus.	
XX	XX	W09937762-A1.	
XX	XX	29-JUL-1999.	
XX	XX	02-DEC-1998; 98WO-EP07805.	
XX	PR	09-OCT-1998; 98GB-0022135.	
XX	PR	27-JAN-1998; 98EP-0300570.	
XX	XX	(SMIK ) SMITHKLINE BEECHAM PLC.	
XX	XX	Chapman CG, Meadows HJ;	
XX	XX	WPI; 1999-469126/39.	
DR	DR	N-PSDB; AAZ00040.	
XX	XX	New two pore potassium channel used for, e.g. treatment of cancer,	
PT	PT	pulmonary, cardiovascular and inflammatory diseases	
XX	XX	Claim 3; Page 26; 44pp; English.	
XX	XX	This sequence is the mouse h-TREK1 polypeptide, encoded by the h-TREK1	
CC	CC	polynucleotide sequence AAZ00040. h-TREK1 is a two pore potassium channel.	
CC	CC	The polynucleotide sequence of h-TREK1 can be used to diagnose a	
CC	CC	disease or susceptibility to a disease related to expression or activa-	
CC	CC	tion of h-TREK-1 polypeptides. The methods of diagnosis may be used in the	
CC	CC	treatment of diseases including cancer, pulmonary, cardiovascular, and	
CC	CC	inflammatory diseases, pain, psychiatric disorders including depression	
CC	CC	and schizophrenia, neurodegenerative diseases including Alzheimer's,	
CC	CC	stroke, and head trauma and neurological disorders including migraine	
XX	XX	Sequence 411 AA;	
XX	XX		
Query Match	44.7%;	Score 1248.5; DB 20; Length 411;	
Best Local Similarity	64.3%;	Pred. No. 1e-104;	
Matches 247; Conservative	53; Mismatches	67; Indels 17; Gaps	
Qy	22	AAAPVCPQKSNATNGQPAPAPPTPTPRLSISRATVVA-RMEGTSOGGLQTVMKWKTVAI	80
Db	2	aapldlpkps-----acnspkrlsfskspkvtlsarvesds---ainvmkwktvtsti	50

Qy	81	FVVVVVYLTGGVLFRALBQPPESSOKNTIALEKAEFLRDHVCVPQELETLIQHLDAD	140
Db	51	fllvvlyliigaavfkaledqpeisqrttivigkqtffiaqhacvnstedeligiqaavi	110
Qy	141	NAGVSPITGNSNNSSHWDLGSAFFFAQTWTTIGYCNATPSTEGGKIICILYAIFGIPLF	200
Db	111	naglipignssnagndlgssiffiffttvtgfnsgsrteggkiicilyalligiplf	170
Qy	201	GFLLAGIGDGLGTIFGKSARVEKVKRQQVSQTKIRIVSTTLFLIAGCIVFTVIPAVIF	260
Db	171	gfllagvgdglgtifkgiakvedtfikwnvsqtkiriistifiilfgovfalpavif	230
Qy	261	KYTEGWTALESIFVFWVTLLTTFVGDFVAGGNAGINREWKYPLWFVWLILGLAYFAA VL	320
Db	231	khiegwsaidalfvvtitttfigfdyvagg-sdeiydfkyppvwfwlilvglayfaavl	289
Qy	321	SMIGDWLRVLUSKKTKEEVEIKRAHAEWKANVTAFRETRRLLSVEIHDKLQAATRISM	380
Db	290	smlgdwlrvisktkeevgefrahaawtanvtaefketrrrlsvelydkfqratsv---	346
Qy	381	ERRRLGDQRASHDLMSLPKRSV	404
Db	347	-krklslaetagnhnqeltpcmrtil	369

RESULT	5
RAY30648	
ID	RAY30648 standard; Protein; 370 AA.
XX	
XX	AC
XX	RAY30648;
XX	
XX	18-NOV-1999 (first entry)
XX	
XX	
XX	
DE	A mechanically sensitive potassium channel protein TREK-1.

Mechanically sensitive potassium channel protein; TREK-1;  
polyunsaturated fatty acid; arachidonic acid; riluzole; heart disease;  
nervous system disease; epilepsy; cardiovascular disease; arrhythmia;  
neurodegeneration; ischemia; anoxia; hormone secretion abnormality;  
muscular disease.

XX	Mus sp.	
OS		
XX	WO9945108-A2.	
XX		
PN		
XX	10-SEP-1999.	
XX		
PD		
XX	23-FEB-1999; 99WO-FR00404.	
PF		
XX	05-MAR-1998; 98FR-0002725.	
XX		
PR	(CNRS ) CNRS CENT NAT RECH SCI.	
XX		
PA	Honore E, Fink M, Lazdunski M, Lesage F, Duprat F;	
XX		
PI	WPI; 1999-551038/46.	
XX	N-PSDB; AA210607.	
XX		
DR	New mechanically sensitive potassium channel, used to screen for	
XX	specific modulators, potential therapeutic agents for heart and nervous	
PT	system disorders -	
XX		
PS	Claim 3; Page 23-25; 40pp; French.	

AA The present sequence represents a mechanically sensitive potassium  
CC channel protein designated TREK-1. The protein is activated by  
CC polyunsaturated fatty acids, particularly arachidonic acid, and by  
CC riluzole. The protein is used to screen for specific modulators which  
CC are useful for treating or preventing diseases of the heart and nervous  
CC systems in humans and animals, e.g. epilepsy, cardiovascular disease  
CC (arrhythmia), neurodegeneration (particularly where associated with  
CC ischemia or anoxia), abnormalities of hormone secretion and muscular

CC disease. The protein itself may be used to treat these diseases.  
 CC Antibodies specific for the protein are used to detect it in tissues,  
 CC also as therapeutic inhibitors or activators.  
 XX  
 SQ Sequence 370 AA;

Query Match	44.6%;	Score 1247.5;	DB 20;	Length 370;
Best Local Similarity	64.5%;	Pred. NO. 1.1e-104;		
Matches 247;	Conservative 52;	Mismatches 67;	Indels 17;	Gaps

QY 22 AAAPVCQPKSATNGPPAPAPTPTPLRSSRATVVA-RMEGTSGGGLQTMVKMKTVAI 80

QY 81 FVVVVVLTGGLVFRALFQPFESSQKNTIALEKAFELRDHVCVSPQELETLIQHALDAD 140

Db 51 flvvlyliigaavfkaleqpqeisqrttivistiqkqfiaghacvinsteldellqqivaai 110

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Db
111 naglipgnssnqvshwdlgssffagtvittlgfignisprteggkfciiyallgplf 170
    |||: |:||||| |||||||:|||||:|||||:|||||:|||||:|||||

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QY	201	GFLLAGIGDGLGTIFGKSLARVEKVFRRKKQVSQTRIRVISTILFLAGCIVFVTIPAVII	266
pb	171	afllagavagdalatifakalakvedtfllkwnvsatkrilstiiifllfcvflpavif	230

QY 261 KYIEGWTALFSYFVVVTLTTVGFGDFVAGGNAGINRYREWKPLVWFILVGLAYFAAVL 320

DD	231	anuregwsaoadalyvvvtttcllygdyvagg	-suiefydukykppvvvllvlgayaaavt	280
QY	321	SMIGDWLRVLSKKTKEEVEGEIKAHAAEWKANVTAEERETRRRLSVEIHDKLQRAATIRSM		380

Db 290 smigdwlrviskktkeevegefrahaawtanvtaefketrriisveilydkfratsv--- 346

Db 347 -krkl saelagnhngeltpcmrt 368

RESULT 6  
AAE10341

ID	AAE10341 standard; Protein; 411 AA.
XX	
AC	AAE10341:

XX  
DT  
XX

10-DEC-2001 (first entry)

XX human TREK-1 potassium channel protein.  
KW Human; potassium channel protein; TREK-1; anaesthetic; analgesia;

XX  
OS Homo sapiens.

PN WO200047738-A2.  
XX  
PP 17 MAY 2000

XX  
PF  
v v  
11-FEB-2000; 2000WO-IB00226.

PR 12-FEB-1999; 99US-0119727.  
PR 11-FEB-2000; 2000US-0503089.  
xx

(CNRS ) CNRS CENT NAT RECH SCI.

AA WPI; 2000-549146/50.  
DR N-PSDB; AAD17496.  
DR

Novel nucleic acid encoding a TREK-1 potassium channel protein for transfecting cells to be used to identify compounds with anesthetic



Db 347 -krkisaelaghnqeltpcrrtl 369

RESULT 8  
AA28496  
ID AAY28496 standard; Protein; 411 AA.  
XX  
AC AAY28496;  
XX  
DT 12-OCT-1999 (first entry)  
XX  
DE h-TREK1 polypeptide.  
XX  
KW h-TREK1; two pore potassium channel; inflammatory disease;  
KW chromosome 1q32.  
XX  
OS Homo sapiens.  
XX  
PN WO9937762-A1.  
XX  
PD 29-JUL-1999.  
XX  
PF 02-DEC-1998; 98WO-EP07805.  
XX  
PR 09-OCT-1998; 98GB-0022135.  
PR 27-JAN-1998; 98EP-0300570.  
XX  
PA (SMIK ) SMITHKLINE BEECHAM PLC.  
PI Chapman CG, Meadows HJ;  
XX  
DR WPI; 1999-469126/39.  
DR N-PSDB; AA200039.  
XX  
XX New two pore potassium channel used for, e.g. treatment of cancer,  
PT pulmonary, cardiovascular and inflammatory diseases  
XX  
PS Claim 3; Page 24; 44pp; English.  
XX  
XX This sequence is the h-TREK1 polypeptide, encoded by the h-TREK1  
CC polynucleotide AA200039. h-TREK1 is a two pore potassium channel, and  
CC the gene maps to human chromosome 1q32, between the markers D1S237 and  
CC W15105. The polynucleotide sequence of h-TREK1 can be used to diagnose a  
CC disease or susceptibility to a disease related to expression or activity  
CC of h-TREK1 polypeptides. The methods of diagnosis may be used in the  
CC treatment of diseases including cancer, pulmonary, cardiovascular, and  
CC inflammatory diseases, pain, psychiatric disorders including depression  
CC and schizophrenia, neurodegenerative diseases including Alzheimer's,  
CC stroke, and head trauma and neurological disorders including migraine.  
XX  
SQ Sequence 411 AA;

Query Match 44.5%; Score 1242.5; DB 20; Length 411;  
Best Local Similarity 63.5%; Pred. No. 3.5e-104; Indels 17; Gaps 5;  
Matches 244; Conservative 57; Mismatches 66;

Qy 22 AAPVCQPKSATNGOPPAPPTPTPRLSSIRATVVA-RMECTSGQLQTVMKWKTVAI 80  
Db 2 aapdlldpkaa-----aqsksprlfsktkptvlasrvesdt---tinvmk\*ktvtstl 50  
Qy 81 FVVVVVYLVGTGLVPRALEQPFESSQKNNTIALEKAEFLRDHVCVSPQBELETLIQHADLAD 140  
Db 51 flvvvlyliigatvfkaleqphelsqrtrtviqkqfshscvsnsteldeliqivaai 110  
Qy 141 NAGVSPIGNSSNNSHWDLGSAFFAGVITIGVNTAPSTEGKIFCILYAFGIPLF 200  
Db 111 nagliiplntsnqshwdlgsffagvittigfignsprteggkifciilyallgipfl 170  
Qy 201 GFLLAGIGDQLGTIFGKSIARVEKVRKKQVSOIKRIVISTILFLAGCIVFVTIPAVIF 260  
Db 171 gflilagvqdlgtifgkjakvedtfikwnvsqtkiristiifilfgcivfalpalif 230

Qy 261 KYIEGTALESIFYVVTLTITVGFDFVAGGNAGINIREWYKPLVMFWILVGLAYFAAVL 320  
Db 231 khiegwsaldailyfvvltititigfdyvagg-sdieyldfykpvvfwllvglayfaavl 289  
Qy 321 SMIGDLRLVLSKKTKEEVEGEIKAHAAEWKANVTAFRETRRLSVEIHDKLQRAATIRSM 380  
Db 290 smigdlrlviskktkeevgefrahaawtanvtaefktrrlsvelydkfgratsi--- 346  
Qy 381 ERRRLGLDQRAHSLDMLSPKRSV 404  
Db 347 -krkisaelaghnqeltpcrrtl 369

RESULT 9  
AAB50044  
ID AAB50044 standard; Protein; 411 AA.  
XX  
AC AAB50044;  
XX  
DT 19-MAR-2001 (first entry)  
XX  
DE Human TREK.  
XX  
KW Human; TREK; 2P domain potassium channel; resting membrane potential;  
KW neuronal excitability; neurotransmitter release modulation; epilepsy;  
KW neurological disorder; sleep-related disorder; cognitive dysfunction;  
KW attention deficit disorder; addition; anxiety; phobia;  
KW Parkinson's chorea; Huntington's chorea; cerebral palsy; incontinence;  
KW erectile dysfunction; alopecia.  
XX  
OS Homo sapiens.  
XX  
PN WO200072863-A2.  
XX  
PD 07-DEC-2000.  
XX  
PF 01-JUN-2000; 2000WO-GB02107.  
XX  
PR 01-JUN-1999; 99GB-0012733.  
XX  
PA (SMIK ) SMITHKLINE BEECHAM PLC.  
XX  
PI Hervieu GJ, Meadows HJ, Randall AD;  
XX  
DR WPI; 2001-080422/09.  
XX  
DR N-PSDB; AAC90412.  
XX  
PT Use of human TREK1 polypeptide, polynucleotides encoding them and  
PT modulators of h-TREK1 polypeptides for treating epilepsy, sleep-related  
PT disorders, addition and dyskinesias including Parkinson's and  
PT Huntington's chorea  
XX  
PS Claim 7; Page 29; 35pp; English.  
XX  
XX The present sequence is human TREK1 (h-TREK1). h-TREK1 is a member of the  
CC 2P domain potassium channel family of proteins which play a part in the  
CC control of resting membrane potential. Modulation of these channels will  
CC therefore affect neuronal excitability, thereby leading to a modulation  
CC of neurotransmitter release and activity of neuronal networks. Such  
CC modulation therefore may be useful for the treatment of certain  
CC neurological conditions such as epilepsy, sleep-related disorders,  
CC cognitive dysfunction, attention deficit disorder, addiction,  
CC anxiety/phobia, Parkinson's and Huntington's chorea, cerebral palsy,  
CC incontinence, erectile dysfunction or alopecia.  
XX  
SQ Sequence 411 AA;

Query Match 44.5%; Score 1242.5; DB 22; Length 411;  
Best Local Similarity 63.5%; Pred. No. 3.5e-104; Indels 17; Gaps 5;  
Matches 244; Conservative 57; Mismatches 66;

Qy 22 AAPVCQPKSATNGOPPAPPTPTPRLSSIRATVVA-RMECTSGQLQTVMKWKTVAI 80



```
Db      2 aapdlldpkasa-----agnskprlsfstkptvlasrvesdt---tinvmkwktvsti 50
QY      81 FVVVVVLTGGLVFRALQEPFESSQKNTIALEKAEFLRDHVCVSPQLETLQHIALDAD 140
Db      51 flvvvylilgatvfkaleqphelsqrttviqkqtfisqhsncvnsteldeliqivaai 110
QY      141 NAGVSPICGNSNNSHWDLGSAFFAGTAVTTTIGYGNIAFSTEGGKIFCILIYALFGIPLF 200
Db      111 naglipgntsnqishwdlgssffagvtvttigfngisprteggkifciiyallgipf 170
QY      201 GFLLAGTGDOLGTFIFGKSIARVEKVRKQVSTQKIRVISTILFILAGCIVFVTIPAVIF 260
Db      171 gflilagvgdqlgtifgkiakvedtfikwnvsqtkirliisfilfvcvlfvalpalif 230
QY      261 KYTEGWTALESIYVVVYTLTGVGDFVAGNAGINREMYKPLVFWFVILVGLAYFAVL 320
Db      231 khlegwsaldailyfvvltlttigfgyvagg-sdleyldfkykpvvfwilvglayfaavl 289
QY      321 SMIGDWLRVLSSKTKKEVGEIKAAEHWKANVTAEFRRRLRSVEIHDKLQRAATIRSM 380
Db      290 smigdwlrviskktkeevgefrahaaewtanvtaefketrirrsvelydkfqratsi--- 346
QY      381 ERRRLGLDQRAHSLDMLSPKRSV 404
Db      347 -krklssaelagnhnqeltportl 369

RESULT 10
AAU07618
ID      AAU07618 standard; Protein; 426 AA.
XX
AC      AAU07618;
XX
DT      21-NOV-2001 (first entry)
DE      Human potassium ion channel TPKC1 protein.
DE
XX      Transmembrane potassium ion channel protein; inward potassium flux;
KW      pest control; membrane potential; pesticide; antihelminthic; nematode;
KW      insect; TPKC1; human.
XX
OS      Homo sapiens.
XX
PN      WO200161006-A2.
XX
PD      23-AUG-2001.
XX
PF      14-FEB-2001; 2001WO-US04680.
XX
PR      15-FEB-2000; 2000US-0503849.
XX
PA      (BADI ) BASF CORP.
XX
PI      Pausch MH;
XX
FH      WPI; 2001-536570/59.
XX
FT      N-PSDB; AAS12169.
XX
PT      New polypeptide, a mutant potassium ion channel protein for improving
PT      inward potassium flux under acidic conditions
XX
PS      Example 15; Page 45; 131pp; English.
XX
CC      The invention relates to a mutant potassium ion channel protein, having a
CC      four membrane spanning domains and two pore forming domains, comprising a
CC      mutation at the second pore forming domain. The expression of the mutant
CC      protein in a cell confers improved inward potassium flux and the ability
CC      to grow in the presence of potassium. Mutant proteins and their
CC      corresponding polynucleotide sequences can therefore be used to improve
CC      inward potassium flux into cells under acidic conditions by modulating
CC      the membrane potential using therapeutic agents. The sequences may be
CC      used to develop agonists and antagonists of potassium channel proteins in
```

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CC      order to control pests such as nematodes and insects. This sequence
CC      represents a human transmembrane potassium ion channel protein, TPKC1.
SQ      Sequence 426 AA;
Query Match 43.6%; Score 1218.5; DB 22; Length 426;
Best Local Similarity 62.8%; Pred. No. 5.6e-102;
Matches 241; Conservative 58; Mismatches 68; Indels 17; Gaps 5;
QY      22 AAPVCPQPKATNGCPAPAPPTPTPLRSLSSRATVVA-RMEGTSGQGLQTVMKWKTVVAI 80
Db      17 aapdlldpkasa-----agnskprlsfstkptvlasrvesdt---tinvmkwktvsti 65
QY      81 FVVVVVLTGGLVFRALQEPFESSQKNTIALEKAEFLRDHVCVSPQLETLQHIALDAD 140
Db      66 flvvvylilgatvfkaleqphelsqrttviqkqtfisqhsncvnsteldeliqivaai 125
QY      141 NAGVSPICGNSNNSHWDLGSAFFAGTAVTTTIGYGNIAFSTEGGKIFCILIYALFGIPLF 200
Db      126 naglipgntsnqishwdlgssffagvtvttigfngisprteggkifciiyallgipf 185
QY      201 GFLLAGTGDOLGTFIFGKSIARVEKVRKQVSTQKIRVISTILFILAGCIVFVTIPAVIF 260
Db      186 gflilagvgdqlgtifgkiakvedtfikwnvsqtkirliisfilfvcvlfvalpalif 245
QY      261 KYTEGWTALESIYVVVYTLTGVGDFVAGNAGINREMYKPLVFWFVILVGLAYFAVL 320
Db      246 khlegwsaldailyfvvltlttigfgyvagg-sdleyldfkykpvvfwilvglayfaavl 304
QY      321 SMIGDWLRVLSSKTKKEVGEIKAAEHWKANVTAEFRRRLRSVEIHDKLQRAATIRSM 380
Db      305 smigdwlrviskktkeevgefrahaaewtanvtaefketrirrsvelydkfqratsi--- 361
QY      381 ERRRLGLDQRAHSLDMLSPKRSV 404
Db      362 -krklssaelagnhnqeltportl 384

RESULT 11
AAU07622
ID      AAU07622 standard; Protein; 426 AA.
XX
AC      AAU07622;
XX
DT      21-NOV-2001 (first entry)
DE      Human potassium ion channel TPKC1 mutant protein #1.
DE
XX      Transmembrane potassium ion channel protein; inward potassium flux;
KW      pest control; membrane potential; pesticide; antihelminthic; nematode;
KW      insect; TPKC1; human; mutant; mutein.
XX
OS      Homo sapiens.
XX
FH      Key Location/Qualifiers
FT      Misc-difference 256
FT      /note= "Wild-type Ala replaced by Thr"
XX
PN      WO200161006-A2.
XX
PD      23-AUG-2001.
XX
PF      14-FEB-2001; 2001WO-US04680.
XX
PR      15-FEB-2000; 2000US-0503849.
XX
PA      (BADI ) BASF CORP.
XX
PI      Pausch MH;
XX
FH      WPI; 2001-536570/59.
XX
FT      N-PSDB; AAS12181.
XX
DR      DR
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```
XX New polypeptide, a mutant potassium ion channel protein for improving
PT inward potassium flux under acidic conditions
XX
XX Claim 37; Page 113-115; 131pp; English.
XX
CC The invention relates to a mutant potassium ion channel protein, having
CC four membrane spanning domains and two pore forming domains, comprising a
CC mutation at the second pore forming domain. The expression of the mutant
CC protein in a cell confers improved inward potassium flux and the ability
CC to grow in the presence of potassium. Mutant proteins and their
CC corresponding polynucleotide sequences can therefore be used to improve
CC inward potassium flux into cells under acidic conditions by modulating
CC the membrane potential using therapeutic agents. The sequences may be
CC used to develop agonists and antagonists of potassium channel proteins in
CC order to control pests such as nematodes and insects. This sequence
CC represents a human transmembrane potassium ion channel TPKC1 mutant
CC protein.
XX Sequence 426 AA;

Query Match 43.6%; Score 1218.5; DB 22; Length 426;
Best Local Similarity 62.8%; Pred. No. 5.6e-102;
Matches 241; Conservative 58; Mismatches 68; Indels 17; Gaps 5;

QY 22 AAAPVCQPKSATNGOPPAPAPPTPRLSISSRATYVA-RMEGTSQGGLOTVMKWKTVAI 80
DB 17 aspdildpksa-----aqnskprlsfstkptkptlasrvesdt---tinvmkwktvsti 65
QY 81 FVVVVVYLTGGLVFRALQEPPESSQKNTIALEKAEFLRDHVCVSPQLETLIQHALDAD 140
DB 66 flvvvlyliigatvfkaleqphelsqrrtviqkqfisdqscvsnsteldelqiqivaai 125
QY 141 NAGVSPIGNSSNNSHWDLSGAFFAGTVITIGYGNIAPTSTEGGKIFCIIYAFEGIPLF 200
DB 126 nagliiplntsnqishwdlgsfaggvtvittigfignlsprteggkifciyalligipf 185
QY 201 GFLLAGIGDQGTIFGKSIARVEKVRKQVSTQKIRIVISTILFILAGCIVFVTPAVIF 260
DB 186 gfillagvgdqgtifgkigakvedtfikwnvsqtikiriistiifilfgcvlfpalif 245
QY 261 KYIEGWTALESYFVVVTLTTVVGDFVAGGNAGINYEYKPLVFWFLLVGLAYFAAVL 320
DB 246 khiegwsaldtiyfvtittigfgyvagg-sdleyldfykpvvfwfllvglayfaavl 304
QY 321 SMIGDMLRVLSKKTKEEVEGEIKAHAAEKANVTAEFRTRRRLSVEIHDKLQRAATIRSM 380
DB 305 smigrivrviskktkeevgefrahaewtanvtaefketrirrlsvelidydkfqratsi--- 361
QY 381 ERRRLGLDQRAHSLDMLSPKRSV 404
DB 362 -krklsaelagnhngeltpcrttl 384

RESULT 12
ID AAU07623 standard; Protein; 426 AA.
XX AAU07623;
AC AAU07623;
XX
DT 21-NOV-2001 (first entry)
XX
DE Human potassium ion channel TPKC1 mutant protein #2.
XX
KW Transmembrane potassium ion channel protein; inward potassium flux;
KW pest control; membrane potential; pesticide; antihelminthic; nematode;
KW insect; TPKC1; human; mutant; mutein.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 272
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FT
XX /note= "Wild-type Tyr replaced by His"
XX WO200161006-A2.
XX
XX 23-AUG-2001.
XX
XX 14-FEB-2001; 2001WO-US04680.
XX
XX 15-FEB-2000; 2000US-0503849.
XX
XX (BADI ) BASF CORP.
XX
XX Pausch MH;
XX
XX WPI; 2001-536570/59.
XX
XX N-PSDB; AAS12182.
XX
XX New polypeptide, a mutant potassium ion channel protein for improving
XX inward potassium flux under acidic conditions
XX
XX Claim 37; Page 115-117; 131pp; English.
XX
CC The invention relates to a mutant potassium ion channel protein, having
CC four membrane spanning domains and two pore forming domains, comprising a
CC mutation at the second pore forming domain. The expression of the mutant
CC protein in a cell confers improved inward potassium flux and the ability
CC to grow in the presence of potassium. Mutant proteins and their
CC corresponding polynucleotide sequences can therefore be used to improve
CC inward potassium flux into cells under acidic conditions by modulating
CC the membrane potential using therapeutic agents. The sequences may be
CC used to develop agonists and antagonists of potassium channel proteins in
CC order to control pests such as nematodes and insects. This sequence
CC represents a human transmembrane potassium ion channel TPKC1 mutant
CC protein.
XX Sequence 426 AA;

Query Match 43.5%; Score 1214.5; DB 22; Length 426;
Best Local Similarity 62.8%; Pred. No. 1.3e-101;
Matches 241; Conservative 57; Mismatches 69; Indels 17; Gaps 5;

QY 22 AAAPVCQPKSATNGOPPAPAPPTPRLSISSRATYVA-RMEGTSQGGLOTVMKWKTVAI 80
DB 17 aspdildpksa-----aqnskprlsfstkptkptlasrvesdt---tinvmkwktvsti 65
QY 81 FVVVVVYLTGGLVFRALQEPPESSQKNTIALEKAEFLRDHVCVSPQLETLIQHALDAD 140
DB 66 flvvvlyliigatvfkaleqphelsqrrtviqkqfisdqscvsnsteldelqiqivaai 125
QY 141 NAGVSPIGNSSNNSHWDLSGAFFAGTVITIGYGNIAPTSTEGGKIFCIIYAFEGIPLF 200
DB 126 nagliiplntsnqishwdlgsfaggvtvittigfignlsprteggkifciyalligipf 185
QY 201 GFLLAGIGDQGTIFGKSIARVEKVRKQVSTQKIRIVISTILFILAGCIVFVTPAVIF 260
DB 186 gfillagvgdqgtifgkigakvedtfikwnvsqtikiriistiifilfgcvlfpalif 245
QY 261 KYIEGWTALESYFVVVTLTTVVGDFVAGGNAGINYEYKPLVFWFLLVGLAYFAAVL 320
DB 246 khiegwsaldtiyfvtittigfgyvagg-sdleyldfykpvvfwfllvglayfaavl 304
QY 321 SMIGDMLRVLSKKTKEEVEGEIKAHAAEKANVTAEFRTRRRLSVEIHDKLQRAATIRSM 380
DB 305 smigrivrviskktkeevgefrahaewtanvtaefketrirrlsvelidydkfqratsi--- 361
QY 381 ERRRLGLDQRAHSLDMLSPKRSV 404
DB 362 -krklsaelagnhngeltpcrttl 384

RESULT 13
AAU07624
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Db	186	gfillagvgdqlgtifgkgiakvedtfikwnvsqtkiriistiifilfgcvlfaipaiif	245
Qy	261	KYIEGWTALESIVFVVVTLTFVCGDFVAGGNAGINRYRWYKPLVWFVTLVGLAYFAAVL	320
Db	246	khlegwsaldaiyfvvltlttfgdhvvvg-sdleyldfykpvvfwllvlglayfaavl	304
Qy	321	SMIGDWLRVLSKKTKEEVGKIAHAAEWKANVTAEFRFRRRLSVIHDKLQRAATIRSM	380
Db	305	smgrrlvrvlskktkeevgefrahaaewtanvtaefketrirrlsveiydkfqratsi---	361
Qy	381	ERRRLGDLQRAHSLDMLSPKRSV	404
Db	362	-krklssaelagnhnqeltpcrrtl	384
RESULT 14			
AAU07625	AAU07625 standard; Protein; 426 AA.		
XX	XX	AAU07625;	
XX	XX		
DT	21-NOV-2001	(first entry)	
XX	Human potassium ion channel TPKC1 mutant protein #4.		
DE	Transmembrane potassium ion channel protein; inward potassium flux;		
KW	pest control; membrane potential; pesticide; antihelminthic; nematode		
KW	insect; TPKC1; human; mutant; muten.		
XX	Homo sapiens.		
OS			
XX			
PH	Key	Location/Qualifiers	
FT	Misc-difference 270	/note= "Wild-type Gly replaced by Arg"	
FT			
XX	WO200161006-A2.		
XX	23-AUG-2001.		
XX	14-FEB-2001; 2001WO-US04680.		
PF	15-FEB-2000; 2000US-0503849.		
PR	(BADI ) BASF CORP.		
PA	Pausch MH;		
PI			
XX	WPI; 2001-536570/59.		
DR	N-PSDB; AAS12184.		
XX	New polypeptide, a mutant potassium ion channel protein for improving		
PT	inward potassium flux under acidic conditions		
XX	Claim 37; Page 119-120; 131pp; English.		
PS			
XX	The invention relates to a mutant potassium ion channel protein, having		
CC	four membrane spanning domains and two pore forming domains, comprising		
CC	mutation at the second pore forming domain. The expression of the mutant		
CC	protein in a cell confers improved inward potassium flux and the ability		
CC	to grow in the presence of potassium. Mutant proteins and their		
CC	corresponding polynucleotide sequences can therefore be used to improve		
CC	inward potassium flux into cells under acidic conditions by modulating		
CC	the membrane potential using therapeutic agents. The sequences may be		
CC	used to develop agonists and antagonists of potassium channel proteins		
CC	order to control pests such as nematodes and insects. This sequence		
CC	represents a human transmembrane potassium ion channel TPKC1 mutant		
XX	protein.		
XX	Sequence	426 AA;	
SQ			

Search completed: September 21, 2002, 09:48:16  
Job time: 4507 sec



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GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: September 21, 2002, 08:36:04 ; Search time 32.67 Seconds  
(without alignments)  
405.972 Million cell updates/sec

Title: US-09-729-920-2  
Perfect score: 2795  
Sequence: 1 MKFPIETPRKQVNDPKVAV.....IPTDTKDREPNNSLLLEDNRN 543

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 231628 seqs, 24425594 residues

Total number of hits satisfying chosen parameters: 231628

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_AA.\*  
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2: /cgn2\_6/ptodata/2/iaa/5B\_COMB.pep.\*  
3: /cgn2\_6/ptodata/2/iaa/6A\_COMB.pep.\*  
4: /cgn2\_6/ptodata/2/iaa/6B\_COMB.pep.\*  
5: /cgn2\_6/ptodata/2/iaa/PCTUS\_COMB.pep.\*  
6: /cgn2\_6/ptodata/2/iaa/backfiles1.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1248.5	44.7	411	4	US-09-236-080-6
2	1242.5	44.5	411	4	US-09-236-080-2
3	1238.5	44.3	370	4	US-09-144-914-8
4	447	16.0	107	4	US-09-236-080-4
5	403	14.4	336	3	US-08-749-816-2
6	403	14.4	336	4	US-09-144-914-2
7	352.5	12.6	405	4	US-09-144-914-5
8	349.5	12.5	394	4	US-09-144-914-4
9	290.5	10.4	618	1	US-08-332-312-2
10	212.5	7.6	336	1	US-08-332-312-4
11	164.5	5.9	347	3	US-08-749-816-3
12	164.5	5.9	347	4	US-09-144-914-6
13	159	5.7	383	3	US-08-749-816-4
14	159	5.7	383	4	US-09-144-914-7
15	121.5	4.3	676	4	US-09-135-021-2
16	121.5	4.3	676	4	US-09-135-020-2
17	121.5	4.3	676	4	US-09-135-010A-2
18	121.5	4.3	676	4	US-09-634-920-2
19	113.5	4.1	1036	2	US-08-720-484A-5
20	113.5	4.1	1036	4	US-08-953-823A-5
21	110	3.9	754	4	US-09-214-564A-2
22	109	3.9	680	1	US-07-674-287B-2
23	109	3.9	680	2	US-08-436-900A-2
24	105.5	3.8	473	1	US-08-597-236-13
25	105.5	3.8	473	1	US-08-746-682A-13
26	105.5	3.8	1312	2	US-08-592-126-148
27	105.5	3.8	1312	2	US-08-687-080-51

28	104.5	3.7	2509	2	US-08-149-097D-35	Sequence 35, Appl
29	103.5	3.7	376	4	US-09-135-020-113	Sequence 113, App
30	103.5	3.7	376	4	US-09-135-010A-113	Sequence 113, App
31	101	3.6	776	1	US-08-021-601-2	Sequence 2, Appl
32	101	3.6	776	1	US-08-082-849B-2	Sequence 2, Appl
33	101	3.6	776	5	PCT-US94-01624-2	Sequence 2, Appl
34	101	3.6	783	4	US-08-922-837-2	Sequence 2, Appl
35	101	3.6	783	4	US-09-351-550-2	Sequence 2, Appl
36	100.5	3.6	831	2	US-08-677-734A-11	Sequence 11, Appl
37	100.5	3.6	2336	4	US-09-268-163-10	Sequence 10, Appl
38	100	3.6	1388	4	US-09-572-191-2	Sequence 2, Appl
39	99.5	3.6	682	2	US-08-436-900A-4	Sequence 4, Appl
40	99.5	3.6	955	1	US-08-006-676B-1	Sequence 1, Appl
41	99.5	3.6	955	1	US-08-282-845-2	Sequence 2, Appl
42	99.5	3.6	955	5	PCT-US94-00324-1	Sequence 1, Appl
43	98.5	3.5	2265	2	US-08-149-097D-36	Sequence 36, Appl
44	97.5	3.5	664	1	US-08-421-661-6	Sequence 6, Appl
45	97.5	3.5	1093	4	US-09-315-793-52	Sequence 52, Appl

ALIGNMENTS

RESULT 1  
US-09-236-080-6  
; Sequence 6, Application US/09236080  
; Patent No. 6242217  
; GENERAL INFORMATION:  
; APPLICANT: Helen Meadows  
; APPLICANT: Conrad Chapman  
; TITLE OF INVENTION: No. 6242217el Compounds  
; FILE REFERENCE: GP30031  
; CURRENT APPLICATION NUMBER: US/09/236,080  
; CURRENT FILING DATE: 1999-01-25  
; NUMBER OF SEQ ID NOS: 6  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 6  
; LENGTH: 411  
; TYPE: PRT  
; ORGANISM: Mus musculus  
US-09-236-080-6

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Best Local Similarity	64.3%	Pred	No	1.2e-105			
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QY	81	FVVVVVYLVGVLFRALQPPFESSOKNTIALEKAEFLRDHVCVSPQLETLTQHLDAD	140				
Db	51	FLVVLVYLIGAFAVFALEQPPQEIISQRTTIVIOKQTFIAQHACVNSTELDELIQOIVAAI	110				
QY	141	NAGVSPIGNSSNNSSHWDLGSAFFAGTATTTCYGNIAFSTEGGKIFCIFYAIFGIPLF	200				
Db	111	NAGIIPGNSSNOVSHWDLGSSFFAGTATTTCYGNIAFSTEGGKIFCIFYAIFGIPLF	170				
QY	201	GFLLAGIGDLGTIFGKSARVEKVFRRKQVQSOTKIRVISTILFILAGCIVFTVPAVIF	260				
Db	171	GFLLAGVGDLGTIFGKSAKVEDTFIKNVVSQTKRIISTIFILFGCVLFVALPAVIF	230				
QY	261	KIEGWTALIESYFVVVTTTGVGDFVAGGNAGINREWKYKPLVFWFWILVGLAYFAAVL	320				
Db	231	KHIEGWSALDAIFYVITLTITIGFDYVAGG-SDIEYLDYFKPVVFWILVGLAYFAAVL	289				
QY	321	SMIGDMLRVLSKTKKEVGEIKAHAAAEKANTVAETRRRLSVETHDKLRQAATIRSM	380				
Db	290	SMIGDMLRVLSKTKKEVGEIFRAAAEANTVAETRRRLSVETHDKLRQAATIRSM	346				
QY	381	ERRRLGLDQRAHSLDMLSPKRSV	404				





00C MATFAMENRINSGNDNA TGGTATATTAATCTCTTTCG TTCTTATATTTATATGCG GCT FT

RESULT 7  
US-09-144-914-5

RESULT 7  
US-09-144-914-5  
; Sequence 5, Application US/09144914  
; Patent No. 6309855  
; GENERAL INFORMATION:  
; APPLICANT: Duprat, Fabrice  
; APPLICANT: Lesage, Florian  
; APPLICANT: Fink, Michel  
; APPLICANT: Lazdunski, Michel  
; TITLE OF INVENTION: FAMILY OF MAMMALIAN POTASSIUM CHANNELS, THEIR CLONING

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; TITLE OF INVENTION: AND THEIR USE, ESPECIALLY FOR THE SCREENING OF DRUGS
; FILE REFERENCE: 989.6705CIP
; CURRENT APPLICATION NUMBER: US/09/144,914
; CURRENT FILING DATE: 1998-09-01
; EARLIER APPLICATION NUMBER: 08/749,816
; EARLIER FILING DATE: 1996-11-15
; EARLIER APPLICATION NUMBER: 60/095,234
; EARLIER FILING DATE: 1998-08-04
; EARLIER APPLICATION NUMBER: FR 96/01565
; EARLIER FILING DATE: 1996-02-08
; NUMBER OF SEQ ID NOS: 24
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 405
; TYPE: PRT
; ORGANISM: Murine
; FEATURE:
; OTHER INFORMATION: TASK
; US-09-144-914-5

Query Match      12.6%; Score 352.5; DB 4; Length 405;
Best Local Similarity 32.1%; Pred. No. 6.5e-24;
Matches 90; Conservative 53; Mismatches 110; Indels 27; Gaps 8;

QY 78 VAIFVVVVVLTGGLVFRALQPFESSOKNTIALEKAEFLRDHVCVSP---QELETLIQ 134
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Db 6 LALIVCFYLLVGAADFDALESEPEMERQRLRLQLE-LRARNLSGGYEELERVVL 64

QY 135 HALDADNAGVSPIGNSSNNSSHDGSAFFAGTIVTTIGYGNIAPISTEGKIFCILYAI 194
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 65 R-LKPHKAGY-----QWRFAGSYFAITVTTIGYHAAAPSTDGGRVCFMYAL 112

QY 195 FGIPFLGFLLAGIGDQGTIFGKSIARVEKVKQVSTQKIRVISTILFVLT 254
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
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QY 255 IPAVIFKYIEGWTALESYFVWVTLTVGFGDFA-GGNAGINRYREWKPLVFWILVGL 313
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 170 IGAAAFSYERWTFQYAYYCFITLTTIGFGDYVALQKQALQTPQYVAFSFVYILTGL 229

QY 314 AYFAVLSMIGDMLRVLSKTKKEVGEIKAHAAEWKANVT 353
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Db 230 TVIGAFNLV--VLRFTMNADEKRD-----AEHRAALT 262

RESULT 8
; US-09-144-914-4
; Sequence 4, Application US/09144914
; Patent No. 6309855
; GENERAL INFORMATION:
; APPLICANT: Duprat, Fabrice
; APPLICANT: Lesage, Florian
; APPLICANT: Fink, Michel
; APPLICANT: Lazdunski, Michel
; TITLE OF INVENTION: FAMILY OF MAMMALIAN POTASSIUM CHANNELS, THEIR CLONING
; TITLE OF INVENTION: AND THEIR USE, ESPECIALLY FOR THE SCREENING OF DRUGS
; FILE REFERENCE: 989.6705CIP
; CURRENT APPLICATION NUMBER: US/09/144,914
; CURRENT FILING DATE: 1998-09-01
; EARLIER APPLICATION NUMBER: 08/749,816
; EARLIER FILING DATE: 1996-11-15
; EARLIER APPLICATION NUMBER: 60/095,234
; EARLIER FILING DATE: 1998-08-04
; EARLIER APPLICATION NUMBER: FR 96/01565
; EARLIER FILING DATE: 1996-02-08
; NUMBER OF SEQ ID NOS: 24
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 394
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
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; OTHER INFORMATION: TASK
; US-09-144-914-4

Query Match      12.5%; Score 349.5; DB 4; Length 394;
Best Local Similarity 32.8%; Pred. No. 1.2e-23;
Matches 95; Conservative 53; Mismatches 109; Indels 33; Gaps 10;

QY 72 MKWKTV--VAIFVVVVVLTGGLVFRALQPFESSOKNTIALEKAEFLRDHVCVSP--- 126
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Db 1 MKRQNVRTLALIVCTFTYLLVGAADFDALESEPELIERQRLRQOE-LRARNLSGGY 59

QY 127 QELETLIQHALDADNAGVSPIGNSSNNSSHDGSAFFAGTIVTTIGYGNIAPISTEGGK 186
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   : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 60 EELRVVLR-LKPHKAGV-----QWRFAGSYFAITVTTIGYHAAAPSTDGK 107

QY 187 IFCILVAIFGIPFLGFLLAGIGDQGTIFGKSIARVEK--VERKKVSTQKIRVISTILF 244
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   : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 108 VFCMFALLGIPLTLMFQSLGERINTFVRYLLHRAKGLGMRADVSMANN-----VLI 162

QY 245 ILAGCIVFVTPAVIFKYIEGWTALESYFVWVTLTVGFGDFA-GGNAGINRYREWK 303
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QY 304 LVWFVILVGLAYFAVLSMIGDMLRVLSKTKKEVGEIKAHAAEWKANVT 353
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 223 FSFVYILTGLTVIGAFNLV--VLRFTMNADEKRD-----AEHRAALT 265

RESULT 9
; US-08-332-312-2
; Sequence 2, Application US/08332312
; Patent No. 5559026
; GENERAL INFORMATION:
; APPLICANT: Price, Laura A.
; APPLICANT: Pausch, Mark H.
; TITLE OF INVENTION: Functional Expression of a Drosophila
; TITLE OF INVENTION: Melanogaster Putative Potassium Channel in Yeast
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: American Cyanamid Company
; STREET: One Cyanamid Plaza
; CITY: Wayne
; STATE: New Jersey
; COUNTRY: US
; ZIP: 07470-8426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/332,312
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Harrington, James J.
; REGISTRATION NUMBER: P-38,711
; REFERENCE/DOCKET NUMBER: 32,421
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201-831-3246
; TELEFAX: 201-831-3305
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 618 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-332-312-2

Query Match      10.4%; Score 290.5; DB 1; Length 618;
Best Local Similarity 23.8%; Pred. No. 5.6e-18;
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	Best Local Similarity	22.1%;	Pred. No. 2.7e-06;		
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y	85	VYLVTTGGLVFRALQPPFESSOKNTIALE----	KAEF---	LRDHVCVSPQEEL---	TLI 133
b	49	VTVLGGAYLFUSIEHPEELKREKRAIRFQDLKOQFMGNITGSIENSEQSIEYTKKLI	108		
y	134	QHALLADNAGVSp--IGNSSNNSHWDLGSAPFFAGT	VTTTGYNIAPSTEGGIFCIL	191	
b	109	LMEADHNAHAIEYFLNLHEIPKDMWTFSALSALVF	TITVPYGYIPIPVSAIGRMCLIA	168	
y	192	YAIFGIPLFGLLAGIGDOLGTIFCKSIAIR-VEKVFRKKQVSQT	KIRVTISTILTLAOCI	250	
y	169	YALGIGTPL---TIIVTWADP-----GKFAOILTVRFGDNNMA-----	IIPAIFV---CL	211	



QY 482 RN-----YSLDEEKE-----EETERKMCNSDNSS 505  
|: |: |: |:  
Db 546 SOGHLNLMVRIKELQRELDOSIGKPSLFISVSEKSKDRGNTIGARLNRYEDKVTOLDQR 605  
QY 506 TAMLTDICIQOHALENGMIP 525  
|: |: |: |:  
Db 606 LALITDMLHOLLSLHGGSTP 625

Search completed: September 21, 2002, 09:49:02  
Job time: 4378 sec

GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: September 21, 2002, 08:38:29 ; Search time 49.26 Seconds  
(without alignments)  
1059.206 Million cell updates/sec

Title: US-09-729-920-2  
Perfect score: 2795  
Sequence: 1 MKFPIETPRKQVNDPKVAV.....IPTDKREPPENSLLEDNRN 543

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283138 seqs, 96089334 residues  
Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : PIR-71.\*  
1: pir1.\*  
2: pir2.\*  
3: pir3.\*  
4: pir4.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	403	14.4	336	2 S65566	inward rectifier p
2	329	11.8	330	2 JC7703	TASK-5 protein - h
3	326	11.7	1001	2 T13807	potassium channel
4	315.5	11.3	329	2 T43509	probable potassium
5	307	11.0	336	2 T32347	outward rectifier
6	300.5	10.8	364	2 T43361	probable potassium
7	298.5	10.7	393	2 T25392	hypothetical prote
8	294.5	10.5	1910	2 H88124	protein T12c9.3 [1
9	290.5	10.4	334	2 T19860	hypothetical prote
10	282.5	10.1	392	2 T45032	hypothetical prote
11	268.5	9.6	522	2 T42465	hypothetical prote
12	265.5	9.5	528	2 T21834	hypothetical prote
13	264.5	9.5	444	2 T26229	hypothetical prote
14	264	9.4	551	2 T16426	hypothetical prote
15	264	9.4	555	2 T43357	potassium channel
16	262.5	9.4	443	2 T21598	hypothetical prote
17	260	9.3	461	2 T43394	potassium channel
18	258.5	9.2	513	2 T28933	hypothetical prote
19	255	9.1	452	2 T21118	hypothetical prote
20	252.5	9.0	586	2 T21683	hypothetical prote
21	248	8.9	325	2 T15584	hypothetical prote
22	247	8.8	427	2 T27681	hypothetical prote
23	245	8.8	1136	2 T26953	hypothetical prote
24	244	8.7	504	2 T22269	hypothetical prote
25	233.5	8.4	484	2 T43529	probable potassium
26	233.5	8.4	519	2 T16299	hypothetical prote
27	233.5	8.4	1539	2 T30037	hypothetical prote
28	229.5	8.2	383	2 T23182	hypothetical prote
29	227.5	8.1	307	2 H89074	protein twk-24 [im

30	224.5	8.0	524	2 T23907	hypothetical prote
31	224.5	8.0	769	2 T27550	hypothetical prote
32	221.5	7.9	643	2 T26616	hypothetical prote
33	218	7.8	335	2 S44635	f22b7.7 protein -
34	217.5	7.8	691	2 S46585	outward-rectifier
35	216.5	7.7	576	2 T43363	potassium channel
36	213.5	7.6	660	2 T21551	hypothetical prote
37	213	7.6	569	2 T43531	probable potassium
38	210.5	7.5	544	2 T43364	potassium channel
39	208.5	7.5	485	2 T24201	hypothetical prote
40	207.5	7.4	700	2 T27364	hypothetical prote
41	204.5	7.3	550	2 T22557	hypothetical prote
42	203.5	7.3	539	2 T23700	hypothetical prote
43	202	7.2	681	2 T19429	hypothetical prote
44	198	7.1	631	2 T26232	hypothetical prote
45	189.5	6.8	475	2 T27725	hypothetical prote

ALIGNMENTS

RESULT 1

S65566  
inward rectifier potassium channel TWIK-1 - human  
C:Species: Homo sapiens (man)  
C>Date: 28-Oct-1996 #sequence\_revision 13-Mar-1997 #text\_change 05-Nov-1999  
C:Accession: S65566  
R:Lesage, F.; Guillemare, E.; Fink, M.; Duprat, F.; Lazdunski, M.; Romey, G.; Barhani  
EMBO J. 15, 1004-1011, 1996  
A>Title: TWIK-1, a ubiquitous human weakly inward rectifying K(+) channel with a novel  
A:Reference number: S65566; MUID:96183184  
A:Accession: S65566  
A>Status: preliminary  
A:Molecule type: mRNA  
A:Residues: 1-336 <LES>  
A:Cross-references: EMBL:U33632; NID:g1086490; PIDN:AAB01688.1; PID:g1086491

Query Match 14.4%; Score 403; DB 2; Length 336;  
Best Local Similarity 33.2%; Pred. No. 1.2e-20;  
Matches 95; Conservative 53; Mismatches 104; Indels 34; Gaps 9;

Qy	81	FWVV--VYLVTTGGVLFRALEQPFESSOKNTALEKAEFLRDHVCVSPQELETLIQHALD 138
Db	25	FLVLGLLYLVFGAVFSSVELPYEDLLRQELRLKRLFELEHECLSEQLQFLGRVLE 84
Qy	139	ADNAGVSPIGNSSNNSHWDLGSAFFAGTAVTTTIGYGNIAFSTEGGKIFCLYIAFGIP 198
Db	85	ASNYGVSVLSNASGN-WNWDFTSALFFASTVLTSTGTGHTVPLSDGKAFCLYISVIGIP 143
Qy	199	LFGELLAGIGDQLGTIFCKSIARVEKVFRRKQV-----SQTKIRVISTIL--FILA 247
Db	144	FTLLFLTAIV-----VQRTVHVTRRPVLYFHRMGFSQKVVAIVHVLGLGFVTV 192
Qy	248	GCIVFVTIPAVIFKYIE-GWTALESIFVWVTLTGVGDFVAGNAGINTRYWKPLVW 306
Db	193	SCFFP--IPAAVFSVLEDDWNFLSFYCFISLSTIGLDVYVPGEGYKQKRELYKIGIT 250
Qy	307	FWILVGLAYFAFVLSMIGDWLRVLSK-----KTKEEVGEIKAAHAE 347
Db	251	CYLLGLGLIAMLVLETFCF-LHELLKFRKMFYVKKDKEDQVHIIE 295

RESULT 2

JC7703  
TASK-5 protein - human  
C:Species: Homo sapiens (man)  
C>Date: 09-Nov-2001 #sequence\_revision 09-Nov-2001 #text\_change 09-Nov-2001  
C:Accession: JC7703  
R:Kim, D.; Gnatenco, C.  
Biochem. Biophys. Res. Commun. 284, 923-930, 2001  
A>Title: TASK-5, a new member of the tandem-pore K+ channel family.  
A:Reference number: JC7703; MUID:21303050; PMID:11409881

Db 55 GDKNTTQDEILQRI SDYCDKPVTLPTPTDPTVTMTFTYHAFFAFTVCTSVGYGNISPT 11  
 Qy 182 TEGGKIFCILYAIFGIPGLFGLLAGIDQLGTIFGKSIA RVKFRKKQVS-----QTK 235  
 Db 115 TFAGRMINIA SVIGIPVNGILFAGLGE----VFGRTEFAIYRYKKYKMKSTDMHVVP 170  
 Qy 236 IRVISTILF-ILACGIVFVTPAVIFKY IEGWTALESIYFVVVLTLTVGRGDEVA--GGN 292  
 Db 171 LGLTIVTIALIPGIALFLPLSPVWFVTFENWPSYISLYSYVTTTIGFGDYVPTFGAN 230  
 Qy 293 AGINREW---YKPLVWFVTLVGLAYFAAVLSMIGDWLRVLSKK----TKEEVEGEIKAH 345  
 Db 231 QPKFEGGVFVYQFVIVWFIFSLGYLMTITITRGLQ--SKKLAYLEQQLSSNLKATQ 288  
 Qy 346 AEWKANYTAEPRETRRLS-----VEIHDKLRQAAITRSMERR-----LGL 387  
 Db 289 NRINSGVTKDGVYLRMLNELYILKYKPVTVTDVIATLPRNSCDPLSMRYVEPAPIS 348  
 Qy 388 DORASHL--DMSLPEKRS--VFAALDTGRFKASSQESINRRP-----NNRL 430  
 Db 349 RKRAFSVCA DMVAQREAGVMHANSDELSKLDREKTFETAAYRQTTDLLAKVWVALAT 408  
 Qy 431 KGP-----EQLNKUG--QGASEONI-----INKFGSTSLTRKKNKDLAKTLPE-- 472  
 Db 409 VKPPPAEQEDAALYGVGHGFSDSOILASEWSFSTVNEFTSPRPRARACSDFNLEAPRW 468  
 Qy 473 -----DVQKIYKTFRN-----YSLDEEKKEBETEK 497  
 Db 469 SERPLRSNHNWTSNGDNOQIQEAFNORYKQQRANGAANSTVWHLPEADLEQLKK 525  
 RESULT 4  
 T43509  
 probable potassium channel chain n2P38 - Caenorhabditis elegans  
 C:Species: Caenorhabditis elegans  
 C:Date: 21-Jan-2000 #sequence\_revision 21-Jan-2000 #text\_change 21-Jan-2000  
 C:Accession: T43509  
 R:Wang, Z.W.; Salkoff, L.  
 submitted to the EMBL Data Library, August 1998  
 A:Description: Potassium channels in C. elegans.  
 A:Reference number: 222450  
 A:Accession: T43509  
 A>Status: preliminary; translated from GB/EMBL/DDBJ  
 A:Molecule type: mRNA  
 A:Residues: 1-329 <WANG>  
 A:Cross-references: EMBL:AF083652; PIDN:AAC32863.1  
 Query Match 11.3%; Score 315.5; DB 2: Length 329;  
 Best Local Similarity 31.6%; Pred. No. 1.5e-14;  
 Matches 86; Conservative 48; Mismatches 99; Indels 39; Gaps  
 Qy 78 VAIFVVVVVILVGLVFRALQPFSSQKNTTALSKAEFLRHVCVSPQEUTL----- 132  
 Db 9 LSLIVCTLTLLVGAADFALDENEILQRLKLVQRVR-EKLKTKYKNSADYEILEATIV 67  
 Qy 133 --IQHALDNAGVSPICNSNNSHWDLGSAFFAGTVITTIIGYGNIA PTEGGKIFCI 190  
 Db 68 KSPVH-----KAGY-----QMKFSGAIFYATTTITTIIGYHSTPMTDAGKVFCM 111  
 Qy 191 LYAIFGIPGLFGLLAGIDQLGTIFGKSIA RVKFRKKQVSQTKIRVISTITLFI----- 246  
 Db 112 LYALAGIPLGLIMFQSIGERWNTFAAKLRFIRRAAGKQPI-----VTSDDLIFCTGW 165  
 Qy 247 AGCIVFVTPAVIFKYIEGWTALESIYFVVVLTLTVGRGDEVA--GGN 305  
 Db 166 GGLLIFG--GAFFSSYENNTYFDVAVYFCVTLTTTIGFGDYVALQKRGSLQTOPEYVFFS 223  
 Qy 306 WFWTLVGLAYFAAVLSMIGDWLRVLSKKTEE 337  
 Db 224 LVFTLFLGLTVISAAMNLL--VLRFLMTWTEDE 253





A;Cross-references: GB:chr\_II; PIDN:AC71141.1; PID:g1086770; GSPDB:GN00020; CESP:T12C9.3  
A;Note: proline-rich  
C;Genetics:  
A;Gene: T12C9.3  
A;Map position: 2

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Query Match      10.4%; Score 290.5; DB 2; Length 334;
Best Local Similarity 28.6%; Pred. No. 8.4e-13;
Matches 89; Conservative 67; Mismatches 94; Indels 61; Gaps 15;

QY 75 KTVVAIFVWV--VYVLTGGLVFRALQPESSOKNTIALEKAEFLRDHV----CVSPQE 128
   | : : : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 7 KSARALLLILSTFYLLFGAWVFDKLE-----SEKDTWVRDEIERIYDRLKHKYFNSE 61
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |

QY 129 LETLIQHALLADNAGCVSPIGNSSNNSHWDLGSAFFAGTVITTYGYNTIAPSPGEGKIF 188
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 62 L-----HLFEA--TAIKSIQQA--GYQWQFAGAFYATVVITTVGYGHSAPSNACKLF 112
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |

QY 189 CILVAIFGIPFLGELLAGIGDQLGTIFGKSIARVEKVKFRK-----KQVSQTKIRVIS-T 241
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 113 CMIFALGVPGLMTMFQSIGERVNTFTAYSLLHKFRDSLHQOGFTCLQEVPTTHLLMVSLT 172
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |

QY 242 ILF--ILAGCIVFTYIPAFIKYTEGHTALESIFVVVTLTTVCGFGDFVAGGNAGINRE 299
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 173 IGFVIVISGTYMFT-----IEKWSIFDAYFYCMITFTIGFGDLVP--LQQVNALQ 222
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |

QY 300 WYKPLVWF---WTLVGLVFAAFLVMSIGDWLRLVLSKTKKEEVEGEIKAHAEWKANYTAE 355
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 223 -DQPLYVFTATMFLTLGLAVFSACVNNL-----VLGFMASNADE-----VTAA 264
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |

QY 356 FRETRRRLSVE 366
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db 265 QREPPSAIVLTF 275
   | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |

```

RESULT 10  
T45032  
hypothetical protein Y39B6.f [imported] - *Caenorhabditis elegans*  
C:Species: *Caenorhabditis elegans*  
C:Date: 21-Jan-2000 #sequence\_revision 21-Jan-2000 #text\_change 21-Jul-2000  
C:Accession: T45032  
R:Wilson, R.; Ainscough, R.; Anderson, K.; Baynes, C.; Berks, M.; Bonfield, J.; Burto-  
raser, A.; Fulton, L.; Gardner, A.; Green, P.; Hawkins, T.; Hillier, L.; Jier, M.; Jo-  
B.: O'Callaghan, M.; Parsons, J.; Percy, C.; Rifken, L.; Roopra, A.; Saunders, D.  
Nature 368, 32-38, 1994  
A:Authors: Snowdon, R.; Sims, M.; Smalton, N.; Smith, A.; Smith, M.; Sonhammer, E.  
tock, L.; Wilkinson-Sproat, J.; Wohlman, P.  
A:title: 2.2 Mb of contiguous nucleotide sequence from chromosome III of *C. elegans*.

Query Match 10.18: Score 282.5: DB 2: Length 392:

Best Local Similarity 31.7%; Pred. No. 3.8e-12;  
Matches 77; Conservative 46; Mismatches 97; Indels 23; Gaps 8;

QY 95 FRALQPESSOKNIALEKAEFLRDHVC---VSQOELTLOHALDADNAGVSPIGNSS 151  
Db 118 FSRIEPLEKIEREAY-LDYQWQDRLLQLDIDSEIDKLF--LNIREAALNGIWMDR 173  
QY 152 NNS--HMDLGSFAFFAGVITIGVNIAPSTEGKIFCIYALFGLFLLAGIGD 209  
Db 174 NLTSPNWTGQAFAGTLSTVGVRSPRTGKLTILYCVIGIPLTLLALSIVA 233  
QY 210 QL-----GTIFGKSIAVERKFKQVQSQTIRVI--STILFLAGICVFVTPAVIFKY 263  
Db 234 RMREPSHKLRGLNQLRGLHFTVNHQLHVGWVFASLLLEFVA-----IPAWFESSI 286  
QY 264 E-CWTALESIIYFVVVTLTVGDFVAGNAGINREWKPLWFWILVGLAYFRAVLSM 322  
Db 287 ETDWSTLDAYFYCFVSLTTIGLDFEPDQPNQSPRGLYKIGATVYLMGGLCMMFLAT 346  
QY 323 IGD 325  
Db 347 LYD 349

RESULT 11  
T24265  
hypothetical protein T01B4.1 - Caenorhabditis elegans  
C:Species: Caenorhabditis elegans  
C:Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 18-Feb-2000  
C:Accession: T24265  
R:Wilkinson, J.  
submitted to the EMBL Data Library, March 1996  
A:Reference number: Z19866  
A:Accession: T24265  
A:Status: preliminary; translated from GB/EMBL/DBDJ  
A:Molecule type: DNA  
A:Residues: 1-522 <WIL>  
A:Cross-references: EMBL:Z70036; PIDN:CAA93875.1; GSPDB:GN00028; CESP:T01B4.1  
A:Experimental source: clone T01B4  
C:Genetics:  
A:Gene: CESP:T01B4.1  
A:Map position: X  
A:Introns: 95/3; 142/1; 224/3; 290/1; 458/1

Query Match 9.6%; Score 268.5; DB 2; Length 522;  
Best Local Similarity 22.3%; Pred. No. 5.2e-11;  
Matches 120; Conservative 89; Mismatches 181; Indels 147; Gaps 21;

QY 78 VAIFVVVVVLTGGLVFRALF-----SSQNTIALEKAEFLRDHVCVSP 126  
Db 39 IMILILGYACLGGMFQALEYDQOQLEAEKRVLSSESLAVNLEHLKQKNGOS 98  
QY 127 QE-----LETLIOHALDADNAGVSPIGNSSNNSHMDLGSFAFFAGVITIGVNTA 179  
Db 99 NEKRCLLELTITFIORSDEERG-----WRMDFWNSVFSSATIFTTIGVGNLA 147  
QY 180 PTEGGKIFCIYALFGLFLLAGIGDGLTIFGKSI-----ARVEKVRKKQVSOT 234  
Db 148 CTNIGRTATIIYIGMIGLPLVLKNGF-ELCVKWKAKIQNVQOCLKCFGRKQKRAS 206  
QY 235 KIRVIST-----LFLILAGICVFVTPAVIFKIEGWTALESY 273  
Db 207 SLASITSKEMLEVFPEVPEDDKEDTTFQLRWGLLVIVLVLCVSFVFWENWDFLTAPY 266  
QY 274 FVVVTLTVTVGDFVAGNAGINREWKPLWFWIL--VGLAYFAAVLSMIGD----- 325  
Db 267 FFFVSLSTIGFGDIP-----DHPRTACALFVLXIFGLALFAMVYAILQERVENQY 317  
QY 326 -W-LRVLSKTKKEEVEIKAAAEKWA-----NVTAFETRRRLSVIEIHDKQRAATIRSM 380  
Db 318 MWALELDIKQYQEKLDQMDYDEKADKNDMHFSKKEPVGRPILLQD-LLRGPDLKTS 376

QY 381 ERRRLGLDORASHLMDLSPKRSVFAALDTGRFKASSOESINNRPNLRLKGP-EOLNKH 439  
Db 377 GGRSSD--ASSVTEASDE-----DTRHKV-----GRAILAEAFADDERASHN 420  
QY 440 GOGASEDNIINKFSTSRLTGRKNDKLTPLPDEVOKIYKTFR-----NYSDEEK 490  
Db 421 GTQLNSCTVSNHDS-----QIEAIVFSHFISFINQFNYSDESIL 463  
QY 491 KEEETKMCNS-----DNSSTAM-----LPTCIOQHAELENG 522  
Db 464 EHQLETYDTSCTPPYGDPTTTFNQTRDETVTLSLAETPLSLNKLVEENEDENG 520

RESULT 12  
T21834  
hypothetical protein F36A2.4 - Caenorhabditis elegans  
C:Species: Caenorhabditis elegans  
C:Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 15-Oct-1999  
C:Accession: T21834  
R:Lennard, N.  
submitted to the EMBL Data Library, October 1996  
A:Reference number: Z19476  
A:Accession: T21834  
A:Status: preliminary; translated from GB/EMBL/DBDJ  
A:Molecule type: DNA  
A:Residues: 1-528 <WIL>  
A:Cross-references: EMBL:Z81077; PIDN:CAB03071.1; GSPDB:GN00019; CESP:F36A2.4  
A:Experimental source: clone F36A2  
C:Genetics:  
A:Gene: CESP:F36A2.4  
A:Map position: 1  
A:Introns: 45/3; 81/3; 114/3; 151/3; 195/1; 306/1; 326/1; 368/2; 413/1; 464/2; 494/1

Query Match 9.5%; Score 265.5; DB 2; Length 528;  
Best Local Similarity 22.2%; Pred. No. 8.6e-11;  
Matches 122; Conservative 86; Mismatches 163; Indels 179; Gaps 26;

QY 84 VVYVLTGGLVFRALF-----OPFE-----SSQNTIALEKA 115  
Db 25 VVYIILGAIVFQMLEGEHLNDFNPKHFGPKMVDFFETIFRWSKGAN---FKKS 81  
QY 116 EFLRDHVCVSPQ-----ELETLI-----QHALDADNAGVSPI--- 147  
Db 82 ALKQDHMAKIEQNAKDYVDKLASVAKRDRDKYKNVEDLKSVKEDVDDFNDYDVFYA 141  
QY 148 -----GNSSNNSHMDLGSFAFFAGVITIGVNIAPSTEGKIFCIYALFGLPFG 202  
Db 142 HRAVRHGYDEDSPTWDFANSVFETTTMLTSTIGYGVYVAPSTFGRLFGVYCLIGIPLTV 201  
QY 203 LLAGIGDGLG-TIF-----GKSIARVEKVRKKQVSQ-----TKIR 237  
Db 202 TVANAKFSETIFFLHYELWNKCLEWKK--RKGEVEADPLQPMFGDDENEELDRVR 259  
QY 238 VIS-----TLFLILAGICVFVTPAVIFKIEGWTALESYFVVVTLTVTVGDF-VAGN 292  
Db 260 LVRFPLTVFVFFV---FVYGCIAAVVVRVETWTVVESLYFISLTIVGFGDIRSPCN 316  
QY 293 AGINREWKYKPLWVF---WILVGLAYFAAVLSMIGDW-----LRVLSKTKKEE-----VGE 340  
Db 317 -----IWTLAFVGVVILTTMCDMDVGVGRMYLKEIHYLGRKLKSSNPNFVLLRE 364  
QY 341 IKAAAEKWKANTAFETRRRLSV-----EHTDKLQRAATIRSMERRL 385  
Db 365 AKAR-----RRRAAMASLALQAKGMIFAHKDYNELARKSKRKKRKR- 408  
QY 386 GLDQRAHSLMDLSPKRSVFAALDTGRFKASSOESINNRPNLRLKGPQLNKHGOGASE 445  
Db 409 -----GSHVL-----PNEKFMFARLPD--PPSCQVVSSTAYSURLAWAPPF-----SP 451  
QY 446 D-----NIINKEGTSRLTKRKNKDLKLTLPEDVOKIYKTFRNYSLDEEKEETEKM- 499  
Db 452 DPDLTYNIRYNANAVFKDQSGRSLRALFIKTDKI--EFHKHCVGHGSKTIDVMSICE 509



```

Query Match          9.4%; Score 264; DB 2; Length 555;
Best Local Similarity 20.3%; Pred. No. 1.2e-10;
Matches 108; Conservative 94; Mismatches 205; Indels 124; Gaps 16;

QY 79 AIFVVVVVYLVGTVFRALEQPFESSQKNNTIALEKAEFLRDHVCVSPQLETL-----132
Db 28 SLLMLVLLYSFLGFIQFRIETNAHEMK-----RNERINRTACVS-QILHSIHRWSHN 80
QY 133 ----IGHALDADNAGVSPIGNSSNNSHWDLGSAFFAGTVITIGYGNIAPISTEGGKIF 188
Db 81 QTHKQVQIAEDIAC-----PEPEKDERSEMNFVATIGYGVITITLGYNRIAPITYTGRMF 136
QY 189 CILYAFIGIPFGFLLAGIGDQIGTIFGKSIARVEKVRKQVQTKI-----RVIS 240
Db 137 CIVGICGIPVTWIIIANVGQYLNNFAGDSRRKIEAYRQORRMKASLAGKIYKESSIOV 196
QY 241 TILFILLAGCIVFTIPAVFKYIEG-WTALESIFYVVVTLTVGVGDFVAGGNAGINRYE 299
Db 197 TSLALLCVFLIYVAVGALLPLENGELDFNGLYFNFLCLTAIDFGOLVP-----IRV 249
QY 300 WYKPLVWFLLVGLA-----YFAVLSMIGDWLR 328
Db 250 ELLPITFLYVICIGLATTTIATNGSEYMKKLYHWGKKMKNAAQTRIFWFGKTLKVRDLH 309
QY 329 VLSKKTKEEVEGEIKAHAAEWKANVTAEFRETRRRRLSVEIHDKLQRAATIRSM-----380
Db 310 AVGKKGVEPGMIDALDLENVVERTIAMQEGREP-PEDLNDEPPREPSPRSIIHSPCSTR 368
QY 381 -----ERRRLGDQRAHSLDMLSPKRSVFAALDTGRFKASS 417
Db 369 PSNPPMSPSPREDHPPIFKMDAPAPRSPPLPAYELDI-----KKPIFQALSNEFMNQA 424
QY 418 QESINRPNRLK-GPEQLNKH-----CGGASEDNII-----NKFGSTSRLTKR 461
Db 425 QEKLFDLDFQIEINTELVEDHKCESVIIIEPPATFEDMTIOHSLCVEDYEREKVPKR 484
QY 462 KKDALKTLPEQVKIYKTFERNYSLDEEKKETEKMCSNDSNTAMLTDC 512
Db 485 -FREKKEMYGRDPRKLYET---YQEWDRLERLSDRKHGPRKSVNLNSNC 531

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Search completed: September 21, 2002, 09:50:06  
Job time: 4297 sec

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OM protein - protein search, using sw model

Run on: September 21, 2002, 09:49:14 ; Search time 37.61 Seconds  
(without alignments)  
559,019 Million cell updates/sec

Title: us-09-729-920-2

Perfect score: 2795

Sequence: 1 MKFPETPRKQVNMVAV.....IPTDTKDRENNLSLEDRN 543

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 105224 seqs, 38719550 residues

Total number of hits satisfying chosen parameters: 105224

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt\_40:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query %	Length	ID	Description
1	2697	96.5	538	1	CIWA_HUMAN
2	2658.5	95.1	538	1	CIWA_RAT
3	1251.5	44.8	411	1	CIW2_MOUSE
4	1218.5	43.6	426	1	CIW2_HUMAN
5	812.5	29.1	393	1	CIW4_HUMAN
6	790	28.3	398	1	CIW4_MOUSE
7	483	17.3	499	1	CIW5_HUMAN
8	403	14.4	336	1	CIW1_HUMAN
9	390.5	14.0	336	1	CIW1_MOUSE
10	352.5	12.6	409	1	CIW3_MOUSE
11	352.5	12.6	411	1	CIW3_RAT
12	350.5	12.5	365	1	CIW9_CAVPO
13	349.5	12.5	394	1	CIW3_HUMAN
14	334	11.9	374	1	CIW9_HUMAN
15	333.5	11.9	313	1	CIW6_HUMAN
16	326	11.7	1001	1	ORK1_DROME
17	308	11.0	307	1	CIW8_MOUSE
18	300.5	10.8	307	1	CIW7_HUMAN
19	218	7.8	335	1	TKR8_CAEEL
20	217.5	7.8	691	1	TKL1_YEAST
21	136	4.9	228	1	YWS1_CAEEL
22	123	4.4	457	1	XYLT_LACBR
23	121.5	4.3	676	1	CIQ1_HUMAN
24	121.5	4.3	899	1	YARD_SCHPO
25	119	4.3	602	1	CIK5_RAT
26	115	4.1	602	1	CIK5_MOUSE
27	115	4.1	897	1	CIQ5_HUMAN
28	114.5	4.1	417	1	Y443_CHLPN
29	114	4.1	1276	1	MDR2_CRIGR
30	114	4.1	2424	1	CCAA_RABIT
31	113.5	4.1	1036	1	SNO_DROME
32	113.5	4.1	1969	1	MYSA_CAEEL
33	113	4.0	723	1	ICAL_SHEEP

34	112.5	4.0	528	1	YEP0_YEAST
35	112.5	4.0	724	1	ATI1_VACCV
36	112	4.0	669	1	CIQ1_RAT
37	112	4.0	806	1	CIKB_HUMAN
38	112	4.0	1077	1	HLES_DROME
39	112	4.0	2272	1	CCAE_MOUSE
40	111.5	4.0	1433	1	REST_CHICK
41	111	4.0	2312	1	CCAE_HUMAN
42	110	3.9	574	1	KCN2_MOUSE
43	110	3.9	726	1	ATI_CAMPC
44	110	3.9	813	1	NAH2_RAT
45	110	3.9	2505	1	CCAA_HUMAN

## ALIGNMENTS

RESULT 1

CIWA\_HUMAN

ID CIWA\_HUMAN STANDARD; PRT; 538 AA.

AC P57789; Q9HB59;

DT 16-OCT-2001 (Rel. 40, Created)

DT 16-OCT-2001 (Rel. 40, Last sequence update)

DE Potassium channel subfamily K member 10 (Outward rectifying potassium

channel protein TREK-2) (TREK-2 K+ channel subunit).

GN KCNK10 OR TREK2.

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

OX NCBI\_TaxID=9606;

RN [1]

RP SEQUENCE FROM N.A.

RA MEDLINE=204335789; PubMed=10880510;

RA Lesage F., Terrenoire C., Roney G., Lazdunski M.;

RT "Human TREK2, a 2P domain mechano-sensitive K+ channel with multiple

regulations by polyunsaturated fatty acids, lysophospholipids and Gs,

Gi, and Gq protein-coupled receptors.";

RL J. Biol. Chem. 275:28398-28405(2000).

CC -!- FUNCTION: OUTWARD RECTIFYING POTASSIUM CHANNEL. PRODUCES RAPIDLY

ACTIVATING AND NON-INACTIVATING OUTWARD RECTIFIER K(+) CURRENTS.

CC ACTIVATED BY ARACHIDONIC ACID AND OTHER NATURALLY OCCURRING

CC UNSATURATED FREE FATTY ACIDS.

CC -!- SUBCELLULAR LOCATION: Integral membrane protein (Potential).

CC -!- TISSUE SPECIFICITY: ABUNDANTLY EXPRESSED IN PANCREAS AND KIDNEY

CC AND TO A LOWER LEVEL IN BRAIN, TESTIS, COLON, AND SMALL INTESTINE.

CC -!- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM

CC CHANNELS.

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EMBL; AF279890; BAG15191.1; -

MIM; 605873; -

DR InterPro; IPR003280; 2poreK\_channel.

DR InterPro; IPR000636; Cation\_chan\_non\_lig.

DR InterPro; IPR001622; Channel\_pore\_K.

DR Pfam; PF00520; ion\_trans; 1.

DR PRINTS; PR01333; 2PORECHANNEL.

KW Ionic channel; Transmembrane; Ion transport; Potassium transport;

KW Glycoprotein.

FT DOMAIN 1 71 CYTOPLASMIC (POTENTIAL).

FT TRANSMEM 72 92 POTENTIAL.

FT DOMAIN 154 180 PORE-FORMING 1 (POTENTIAL).

FT TRANSMEM 182 202 POTENTIAL.

FT DOMAIN 203 233 CYTOPLASMIC (POTENTIAL).

FT TRANSMEM 234 254 POTENTIAL.

FT DOMAIN 263 294 PORE-FORMING 2 (POTENTIAL).

```
FT TRANSMEM 299 319 POTENTIAL.
FT DOMAIN 320 538 CYTOPLASMIC (POTENTIAL).
FT CARBOHYD 144 144 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 147 147 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 148 148 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 538 AA; 59764 MW; 8EA615B08D147FBC CRC64;

Query Match 96.5%; Score 2697; DB 1; Length 538;
Best Local Similarity 100.0%; Pred. No. 1.6e-161;
Matches 520; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 18 VAVPAAAPVCPQKSNATGQPPAPAPTPTPLRSLSSRATVVARMEGTSGGGLQTVMKKTV 77
DB 13 VAVPAAAPVCPQKSNATGQPPAPAPTPTPLRSLSSRATVVARMEGTSGGGLQTVMKKTV 72

QY 78 VAIFVVVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLRDHVCSPOBLETLIQHAL 137
DB 73 VAIFVVVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLRDHVCSPOBLETLIQHAL 132

QY 138 DADNAGVSPIGNSSNNSSHDWLGSAFFAGTIVTIGYNIAPSTEGGKIFCIIYALFGI 197
DB 133 DADNAGVSPIGNSSNNSSHDWLGSAFFAGTIVTIGYNIAPSTEGGKIFCIIYALFGI 192

QY 198 PLFGFLLAGIDGDLTGIFGKSIAKVEKFRKKQVSKIRVISTILFILAGCIVFVTIPA 257
DB 193 PLFGFLLAGIDGDLTGIFGKSIAKVEKFRKKQVSKIRVISTILFILAGCIVFVTIPA 252

QY 258 VIFKYGWTALESIIYFVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLRDHVCSPOBLETLIQHAL 317
DB 253 VIFKYGWTALESIIYFVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLRDHVCSPOBLETLIQHAL 312

QY 318 AVLSMIGDMLRVLSKTKKEEVEGEIKAAHAAEWKANTAEFRTRRLSVEIHDKLQRAATI 377
DB 313 AVLSMIGDMLRVLSKTKKEEVEGEIKAAHAAEWKANTAEFRTRRLSVEIHDKLQRAATI 372

QY 378 RSMERRRLGLDQRAHSLDMLSPKRSVFAALDTRGFRKASSOESINNRPNLRLKGPQLN 437
DB 373 RSMERRRLGLDQRAHSLDMLSPKRSVFAALDTRGFRKASSOESINNRPNLRLKGPQLN 432

QY 438 KHGQASDNLINKFGSTSLTRKKNKDLKTLTPEDVQIKYKTFRNSLDEEKKKEETEK 497
DB 433 KHGQASDNLINKFGSTSLTRKKNKDLKTLTPEDVQIKYKTFRNSLDEEKKKEETEK 492

QY 498 MCNSDNLSTAMLTDCIQHAELNGMPTDTKREPENNSLLEDRN 543
DB 493 MCNSDNLSTAMLTDCIQHAELNGMPTDTKREPENNSLLEDRN 538
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## RESULT 2

```
C1WA_RAT
ID C1WA_RAT STANDARD; PRT; 538 AA.
AC Q9JISA;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Potassium channel subfamily K member 10 (Outward rectifying potassium
DE channel protein TREK-2) (TREK-2 K+ channel subunit).
GN K2NK10 OR TREK2.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20298807; PubMed=10747911;
RA Bang H., Kim Y., Kim D.;
RT "TREK-2, a new member of the mechanosensitive tandem-pore K+ channel
RT family.";
RL J. Biol. Chem. 275;17412-17419(2000).
CC -1- FUNCTION: OUTWARD RECTIFYING POTASSIUM CHANNEL. PRODUCES RAPIDLY
CC ACTIVATING AND NON-INACTIVATING OUTWARD RECTIFIER K(+) CURRENTS.
CC ACTIVATED BY ARACHIDONIC ACID AND OTHER NATURALLY OCCURRING
```

```
CC UNSATURATED FREE FATTY ACIDS.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
CC -1- TISSUE SPECIFICITY: EXPRESSED MAINLY IN THE CEREBELLUM, SPLEEN,
CC AND TESTIS.
CC -1- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM
CC CHANNELS.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL: AF196965; AAF75132.1;
CC InterPro: IPR003280; 2porek_channel.
CC InterPro: IPR000636; Cation_chan_non_lig.
CC InterPro: IPR001622; Channel_pore_K.
CC InterPro: IPR003976; Trek_channel.
CC Pfam: PF00520; ion_trans_1.
CC PRINTS: PR01333; 2FOREKCHANEL.
CC PRINTS: PR01499; TREKCHANNEL.
CC Ionic channel; Transmembrane; Ion transport; Potassium transport;
KW Glycoprotein.
FT DOMAIN 1 71 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 72 92 POTENTIAL.
FT DOMAIN 154 180 PORE-FORMING 1 (POTENTIAL).
FT TRANSMEM 182 202 POTENTIAL.
FT DOMAIN 203 233 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 234 254 POTENTIAL.
FT DOMAIN 263 294 PORE-FORMING 2 (POTENTIAL).
FT TRANSMEM 299 319 POTENTIAL.
FT DOMAIN 320 538 CYTOPLASMIC (POTENTIAL).
FT CARBOHYD 144 144 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 147 147 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 538 AA; 59800 MW; 1FF33F0AA52B97E4 CRC64;

Query Match 95.1%; Score 2658.5; DB 1; Length 538;
Best Local Similarity 95.6%; Pred. No. 4e-159;
Matches 520; Conservative 9; Mismatches 8; Indels 7; Gaps 2;

QY 1 MKPFIETPRKQVNDPKVAVPAAA-PVCQPKSATNGOPPAPAPTPTPLRSLSSRATVVAR 59
DB 1 MKPFIETPRKQVNDPKVAVPAAAAPVCPQKSNATNGH-----HPVPLSLSSRATVVAR 54

QY 60 MEGTSQGLQTVMKKTVVAIFVVVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLR 119
DB 55 MEGASQGLQTVMKKTVVAIFVVVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLR 114

QY 120 DHVCSPOBLETLIQHALDADNAGVSPIGNSSNNSSHDWLGSAFFAGTIVTIGYGNIA 179
DB 115 DHVCSPOBLETLIQHALDADNAGVSPVGNSSNNSSHDWLGSAFFAGTIVTIGYGNIA 174

QY 180 PSTEGGKIFCIIYALFGIPLGFLLAGIDGDLTGIFGKSIAKVEKFRKKQVSKIRVI 239
DB 175 PSTEGGKIFCIIYALFGIPLGFLLAGIDGDLTGIFGKSIAKVEKFRKKQVSKIRVI 234

QY 240 STILFILAGCIVFVTIPAVIFKYIEGWTALLESIVFVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLR 299
DB 235 STILFILAGCIVFVTIPAVIFKYIEGWTALLESIVFVVVLTGGLVFRALDQVFPFESSQKNTIALEKAEFLR 294

QY 300 WYKPLVFWFVLVGLAYFAAVALSMIGDMLRVLSKTKKEEVEGEIKAAHAAEWKANTAEFR 359
DB 295 WYKPLVFWFVLVGLAYFAAVALSMIGDMLRVLSKTKKEEVEGEIKAAHAAEWKANTAEFR 354

QY 360 RRLRSVEIHDKLQRAATIRSMERRRLGLDQRAHSLDMLSPKRSVFAALDTRGFRKASSO 419
DB 355 RRLRSVEIHDKLQRAATIRSMERRRLGLDQRAHSLDMLSPKRSVFAALDTRGFRKASSO 414

QY 420 SINRPNLRLKGPQLNKHGQASDNLINKFQSTSLTRKKNKDLKTLTPEDVQIKYK 479
DB 415 SINRPNLRLKGPQLNKHGQASDNLINKFQSTSLTRKKNKDLKTLTPEDVQIKYK 474
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Db 415 SINRRNNLRKGPQLNKHGQASEDNINKFGSTSKLTRKKNKDKLTLPEDVQKIYK 474

QY 480 TFRNYSLDEKKEETKCMKNSDSTAMLTDCIQQAELNEMIPDTKDRPENNSLL 539

Db 475 TFRNYSLDEKKEDETEKCMKNSDSTAMLTDCIQQAEMENGVPWDTKQGLENSLL 534

QY 540 EDNR 543

Db 535 EDNR 538

RESULT 3

CIW2\_MOUSE STANDARD; PRT; 411 AA.

AC P97438;

DT 16-OCT-2001 (Rel. 40, Created)

DT 16-OCT-2001 (Rel. 40, Last sequence update)

DE Potassium channel subfamily K member 2 (Outward rectifying potassium channel protein TREK-1) (Two-pore potassium channel TPCK1) (TREK-1 K+ channel subunit).

GN KCNK2.

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

OX NCBI\_TaxID=10090;

RN [1]

RP SEQUENCE FROM N.A., FUNCTION, AND TISSUE SPECIFICITY.

RC TISSUE=Brain;

RX MEDLINE=97157476; PubMed=9003761;

RA Fink M., Duprat F., Lesage F., Reyes R., Romey G., Heurteaux C., Lazdunski M.;

RA "Cloning, functional expression and brain localization of a novel unconventional outward rectifier K+ channel.";

RL EMBO J. 15:6854-6862(1996).

RN [2]

RP REVISIONS.

RC TISSUE=Brain;

RA Fink M., Duprat F., Lesage F., Reyes R., Romey G., Heurteaux C., Lazdunski M.;

RA Lazdunski M.;

RL Submitted (APR-1999) to the EMBL/GenBank/DBJ databases.

RN [3]

RP ACTIVATION.

RX MEDLINE=99254548; PubMed=10321245;

RA Patel A.J., Honore E., Lesage F., Fink M., Romey G., Lazdunski M.;

RA "Inhalational anesthetics activate two-pore-domain background K+ channels.";

RL Nat. Neurosci. 2:422-426(1999).

CC -1- FUNCTION: OUTWARD RECTIFYING POTASSIUM CHANNEL.

CC -1- SUBUNIT: HOMODIMER (POTENTIAL).

CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).

CC -1- TISSUE SPECIFICITY: HIGH EXPRESSION IN BRAIN AND LUNG. ALSO DETECTED IN KIDNEY, HEART AND SKELETAL MUSCLE. NOT DETECTED IN LIVER. IN THE BRAIN, HIGHEST EXPRESSION IN OLFACTORY BULB, HIPPOCAMPUS AND CEREBELLUM.

CC -1- MISCELLANEOUS: INHIBITED BY BARIUM. ACTIVATED BY VOLATILE GENERAL ANAESTHETICS SUCH AS CHLOROFORM, DIETHYL ETHER, HALOTHANE AND ISOFLURANE.

CC -1- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM CHANNELS.

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EMBL; U73488; AAC53005.2; -

MGD; MGI:109366; Kcnk2.

InterPro; IPR003280; 2porek\_channel.

InterPro; IPR000636; Cation\_chan\_non\_lig.

DR InterPro; IPR001622; Channel\_pore\_k.

DR InterPro; IPR003976; Trek\_channel.

DR Pfam; PF00520; ion\_trans\_1.

DR PRINTS; PRO1333; 2POREKCHANNEL.

DR PRINTS; PRO1499; TREKCHANNEL.

KW Ionic channel; Transmembrane; Ion transport; Potassium transport;

KW Glycoprotein.

FT DOMAIN 1 46 CYTOPLASMIC (POTENTIAL).

FT TRANSMEM 47 67 POTENTIAL.

FT DOMAIN 129 155 PORE-FORMING 1 (POTENTIAL).

FT TRANSMEM 157 177 POTENTIAL.

FT DOMAIN 178 207 CYTOPLASMIC (POTENTIAL).

FT TRANSMEM 208 228 POTENTIAL.

FT DOMAIN 238 268 PORE-FORMING 2 (POTENTIAL).

FT TRANSMEM 273 293 POTENTIAL.

FT DOMAIN 294 411 CYTOPLASMIC (POTENTIAL).

FT DOMAIN 378 411 ESSENTIAL FOR CHLOROFORM AND HALOTHANE SENSITIVITY.

FT DOMAIN 354 411 REQUIRED FOR BASAL CHANNEL ACTIVITY.

FT CARBOHYD 95 95 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 119 119 N-LINKED (GLCNAC. . .) (POTENTIAL).

SQ SEQUENCE 411 AA; 45297 MW; 8F976DDDD103EFA05 CRC64;

Query Match 44.8%; Score 1251.5; DB 1; Length 411;

Best Local Similarity 64.3%; Pred. No. 2.5e-71;

Matches 247; Conservative 54; Mismatches 66; Indels 17; Gaps 5;

QY 22 AAPVCOPKSNATNGQPPAPAPTTPRLSSISSTATVVA-RMEGTSSQGLQTVMKWKTVAI 80

Db 2 AAPDLLDPKSA-----AQNSKPRLSFSKPTVLASRVESDS---AINVMKWKTVSTI 50

QY 81 FVVVVVLTGTVFRALEQPPFESSQNTALEKAEFLRDHVCVSPQELTLIQHALDAD 140

Db 51 FLVVLYLIIGAAVFALEQPPQEIISQRTTIVIOKFFIAQHACVNSTELDELIIQIVAAI 110

QY 141 NAGVSPIGNSSNNSHWDLGSAFFAGTAVTTTIGYGNIAFSTEGGKIFCIYAFIGPLF 200

Db 111 NAGIIPLGSSNQVSHWDLGSSFFAGTAVTTTIGFNGISPRTEGGKIFCIYALLGIPLF 170

QY 201 GFLLAGIGDQGTIFGKSTARVEKVKFKKQVSTKTRVISTILFILAGCIVFTIPAVIF 260

Db 171 GFLLAGVGDLGTIFGKIAKVEDTFIKNVSTQKRIIITFIIFLFGCVLFVALPAVIF 230

QY 261 KYIEGTALIESIVFVVVTLTGVGDFVAGGNAGINREWKPLWFWFWILVGLAYFAVL 320

Db 231 KHIEGWSALDAIYFVVITLTITGFDYVAGG-SDIEYLDYFKPVWFWILVGLAYFAVL 289

QY 321 SMIGDWLRVLSKTKKEEVEGEIKAHAAEWKANVTAEFRRRLSVEIHDKLRRAATIRSM 380

Db 290 SMIGDWLRVLSKTKKEEVEGEFRAHAAEWANTAEFRRRLSVEIYDKFQATSV--- 346

QY 381 ERRRLGDQRAHSLDMLSPKRSV 404

Db 347 -KRKLSAELAGNHQELTPCRRTL 369

RESULT 4

CIW2\_HUMAN STANDARD; PRT; 426 AA.

AC O95069; O9UNE3;

DT 16-OCT-2001 (Rel. 40, Created)

DT 16-OCT-2001 (Rel. 40, Last sequence update)

DT 16-OCT-2001 (Rel. 40, Last annotation update)

DE Potassium channel subfamily K member 2 (Outward rectifying potassium channel protein TREK-1) (TREK-1 K+ channel subunit) (two-pore domain protein TPCK1).

GN KCNK2 OR TREK1 OR TREK.

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

OX NCBI\_TaxID=9606;

RN [1]





Db 121 CIFYALVGIPLFGMLLAGVDRGLSSLRGIGHIEAIFLKWHPVGLVRLSALVFLLLG 180  
 QY 249 CIFYVTIPAVIFKIEGWTALLESIFVWVTLTTVGDFVAGNAGINREWKVPLVWF 308  
 Db 181 CLFVLPTTFVFSMESKLEALFVIVLTITVGDFYVPGDTGQN-SPAYQPLVWF 239  
 QY 309 ILVGLVFAAVALSMIGDLRVLSKTKKEVGEIKAHAAEWKANVTAFRETRR 361  
 Db 240 ILRGLAYFASVLTITGNLWLRVSRTRENGGLTAQAASWTGTVTA--RVQR 290

RESULT 7  
 CIW5\_HUMAN STANDARD; PRT; 499 AA.  
 ID CIW5\_HUMAN STANDARD; PRT; 499 AA.  
 AC O95279;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DE Potassium channel subfamily K member 5 (Acid-sensitive potassium channel protein TASK-2) (TWIK-related acid-sensitive K+ channel 2).  
 GN KCKN5 OR TASK2.  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 OX NCBI\_TaxID=9606;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Kidney;  
 RX MEDLINE=99030343; PubMed=9812978;  
 RA Lazdunski M.;  
 RT "Cloning and expression of a novel pH-sensitive two pore domain K+ channel from human kidney."  
 RL J. Biol. Chem. 273:30863-30869(1998).  
 CC -1- FUNCTION: PH DEPENDENT, VOLTAGE INSENSITIVE, OUTWARDLY RECTIFYING POTASSIUM CHANNEL. OUTWARD RECTIFICATION IS LOST AT HIGH EXTERNAL K+ CONCENTRATIONS.  
 CC -1- SUBUNIT: HOMODIMER (POTENTIAL).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).  
 CC -1- TISSUE SPECIFICITY: ABUNDANT EXPRESSION IN KIDNEY, ALSO DETECTED IN LIVER, PLACENTA AND SMALL INTESTINE. IN THE KIDNEY, EXPRESSION IS RESTRICTED TO THE DISTAL TUBULES AND COLLECTING DUCTS. NOT EXPRESSED IN PROXIMAL TUBULES OR GLOMERULI.  
 CC -1- MISCELLANEOUS: INHIBITED BY QUININE, QUINIDINE AND EXTERNAL ACIDIFICATION.  
 CC -1- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM CHANNELS.  
 CC  
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 CC  
 CC EMBL; AF084830; AAC79458.1; -  
 CC MIM; 603493; -  
 CC InterPro; IPR003280; 2poreK\_channel.  
 CC InterPro; IPR000636; Cation\_chan\_non\_lig.  
 CC InterPro; IPR001622; Channel\_pore\_K.  
 CC Pfam; PF00520; Ion\_trans; 1.  
 CC PRINTS; PR01333; 2PORECHANNEL.  
 KW Ionic channel; Transmembrane; Ion transport; Potassium transport;  
 KW Glycoprotein.  
 FT DOMAIN 1 7 CYTOPLASMIC (POTENTIAL).  
 FT TRANSMEM 8 26  
 FT DOMAIN 85 112 PORE-FORMING 1 (POTENTIAL).  
 FT TRANSMEM 113 133 POTENTIAL.  
 FT DOMAIN 134 157 CYTOPLASMIC (POTENTIAL).  
 FT TRANSMEM 158 180 POTENTIAL.  
 FT DOMAIN 190 215 PORE-FORMING 2 (POTENTIAL).  
 FT TRANSMEM 230 250 POTENTIAL.

FT DOMAIN 251 325 CYTOPLASMIC (POTENTIAL).  
 FT CARBOHYD 77 N-LINKED (GLCNAC...)(POTENTIAL).  
 SQ SEQUENCE 499 AA; 55130 MW; E871A7A4823DDA00 CRC64;  
 Query Match 17.3%; Score 483; DB 1; Length 499;  
 Best Local Similarity 25.8%; Pred. No. 3.5e-23;  
 Matches 131; Conservative 81; Mismatches 185; Indels 110; Gaps 14;  
 QY 84 VVYLVLTGGLVFRALPOPFSSQKNTALEKAEFLRHHVCVSPQELTLOHALDADNAG 143  
 Db 12 IIFYLAIGAAIFEVLEPHWKEAKNNYTKLHLLKFPCLGQEGDLKILEVSDAAGQ 71  
 QY 144 VSPIGNSSNNSHWDLGSAFFACTGTTTIGYGNIAFSTEGGKIFCITYAIFGIPFLGFL 203  
 Db 72 VAITGNOTFN--NWNPNAMIFAATVITITGYGNVAPKTPAGRLFCVFGYGLGVPL---C 126  
 QY 204 LAGIDOLGTIFGKSIARVEKFRKQVSTQKIRVISTILFILAGCIVFVTIPAVIFKYI 263  
 Db 127 LTWI-SALGRKFFGGRAKRLGQFLTKRGVSLRKAQITCTVIFIVWGLVHLVIPPVFMVT 185  
 QY 264 EGWTALESIVFVVVTLTVTGDFVAGNAGINREWKVPLVWFWILVGLAYFAAVLSMI 323  
 Db 186 EGMNIEGLYSFTITISTIGDFVAGNPNFSANYHALYRVFVELWIYGLA----- 236  
 QY 324 GDWLRLVSKTKKEVGEIKAHAAEWKANVTAEFRRRLSVEIHDKLQRAATIRSMERR 383  
 Db 237 --WLSLF-----VNWKVS-----MFVEVHKAIK-----KRRRR 263  
 QY 384 RLGLDQRAHSLDMLSPKRSVFAALDTGRFKASSQESINNRPNNLRK-----GP 433  
 Db 264 KESPESSPKRKALQVKGSTASKDVNIFSLSKKEETYNDLIQIGKKAMKTSGGGETGP 323  
 QY 434 -EQLNKHGCG-----ASEDNIIKFGSTSLTKRKNKDLAKTLPED 473  
 Db 324 GPGLGPGGGGLPALPPSLPLVYVSKNRVPTLEEVSTLRSGHVSPPDEAVARAPED 383  
 QY 474 VQIKYKFRNYSLDEEKEE-----TEKMCNDSNSTAMLTDC 512  
 Db 384 SSPAPEVFMN-QLDRISECEPMDAQDYHPLIFODASITFTVTEAGLSDETSKSLLEDN 442  
 QY 513 I-----QQAHE-----LENGMIPDTDK 529  
 Db 443 LAGESPQQAEGAKAPLNMGEFFSSSE 469  
 RESULT 8  
 CIW1\_HUMAN STANDARD; PRT; 336 AA.  
 ID CIW1\_HUMAN STANDARD; PRT; 336 AA.  
 AC O00180; Q13307;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Potassium channel subfamily K member 1 (Inward rectifying potassium channel protein TWIK-1) (Potassium channel KCNO1).  
 DE KCNK1 OR TWIK1 OR HOH01 OR KCNO1.  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 OX NCBI\_TaxID=9606;  
 RN [1]  
 RP SEQUENCE FROM N.A., FUNCTION, AND MUTAGENESIS OF THR-161.  
 RC TISSUE=Kidney;  
 RX MEDLINE=96183184; PubMed=8605869;  
 RA Lesage F., Guillemare E., Fink M., Duprat F., Lazdunski M., Romey G., Barhanin J.;  
 RT "TWIK-1, a ubiquitous human weakly inward rectifying K+ channel with a novel structure."  
 RL EMBO J. 15:1004-1011(1996).  
 RN [2]  
 RP SEQUENCE FROM N.A., AND REVIEW.  
 RC TISSUE=Brain;  
 RX MEDLINE=98122696; PubMed=9462864;





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QY 187 IFCLYAFGIPLEFGLLAGIGDQIGTIFGKSIAKVEKFKKQVSTQKIRVISTILFIL 246
Db 108 VFCMFYALLGIPLTVMFQSLGERINTFVRYLLHRAK---RGLGMRHAEVSMANVLIGF 164
QY 247 AGCIVFTIPAVIFKYEKGWTALESIVFVVVTLTTVGFGDFVA-GGNAGINRYEMKPLV 305
Db 165 VSCISTLCIGAAAFSYERWTFFQAYYCFITLTITIGFDYVALQKDQALQTOPQYVAFS 224
QY 306 WFVILVGLAYFAVLSMIGDWRVLSKTKKEEVEGEIKAHAAEWKANVT 353
Db 225 FVILTGLTVIGAFNLV---VLRFTMNAEDEKRD-----AEHRAALT 265

RESULT 11
CIW3_RAT STANDARD; PRT; 411 AA.
AC O34912;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Potassium channel subfamily K member 3 (Acid-sensitive potassium
channel protein TASK) (TWIK-related acid-sensitive K+ channel).
GN KCNK3 OR TASK.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Cerebellum;
RA Leonoudakis D., Gray A.T., Winegar B.D., Kindler C.H., Harada M.,
RA Taylor D.M., Chavez R.A., Forsayeth J.R., Yost C.S.;
RT "An open rectifier potassium channel with two pore domains in tandem
cloned from rat cerebellum";
RL J. Neurosci. 18:868-877(1998).
CC -1- FUNCTION: PH-DEPENDENT, VOLTAGE-INSENSITIVE, BACKGROUND POTASSIUM
CHANNEL PROTEIN. RECTIFICATION DIRECTION RESULTS FROM POTASSIUM
ION CONCENTRATION ON EITHER SIDE OF THE MEMBRANE. ACTS AS AN
OUTWARD RECTIFIER WHEN EXTERNAL POTASSIUM CONCENTRATION IS LOW.
WHEN EXTERNAL POTASSIUM CONCENTRATION IS HIGH, CURRENT IS INWARD
(BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
CC -1- TISSUE SPECIFICITY: STRONGEST EXPRESSION IN HEART. MODERATE
EXPRESSION IN LUNG AND BRAIN. LOW LEVELS IN LIVER, KIDNEY AND
SKELETAL MUSCLE.
CC -1- MISCELLANEOUS: INHIBITED BY EXTRACELLULAR ACIDIFICATION, ZINC,
BUPIVACAINE AND PHENYTOIN. ACTIVATED BY PROTEIN KINASE A.
CC -1- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM
CHANNELS.
CC -----
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or send an email to license@isb-sib.ch).
CC -----
DR EMBL; AF031384; AAC39952.1; -
DR InterPro; IPR003280; 2poreK_channel.
DR InterPro; IPR000636; Cation_chan_non_lig.
DR InterPro; IPR001622; Channel_pore_K.
DR InterPro; IPR003092; TASK_channel.
DR Pfam; PF00520; Ion_trans; 1.
DR PRINTS; PR01333; 2POREKCHANNEL.
DR PROSITE; PS01095; TASKCHANNEL.
KW Ionic channel; Transmembrane; Ion transport; Potassium transport;
KW Glycoprotein. 1 8 CYTOPLASMIC (POTENTIAL).
FT DOMAIN 1 29 POTENTIAL.
FT TRANSMEM 9 29 PORE-FORMING 1 (POTENTIAL).
FT DOMAIN 78 101 PORE-FORMING 1 (POTENTIAL).
FT TRANSMEM 108 128 POTENTIAL.
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FT DOMAIN 129 158 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 159 179 POTENTIAL.
FT DOMAIN 184 207 PORE-FORMING 2 (POTENTIAL).
FT TRANSMEM 223 243 POTENTIAL.
FT DOMAIN 244 411 CYTOPLASMIC (POTENTIAL).
FT CARBOHYD 53 53 N-LINKED (GLCNAC... ) (POTENTIAL).
SQ SEQUENCE 411 AA; 45276 MW; D2778016E09E2BF5 CRC64;

Query Match 12.6%; Score 352.5; DB 1; Length 411;
Best Local Similarity 32.3%; Pred. NO. 4e-15;
Matches 93; Conservative 54; Mismatches 112; Indels 29; Gaps 9;

QY 72 MKWKTV--VAIFVVVYVLTGGLVFRALQPPFESSOKNTIALEKAEFLRHVCVSP--- 126
Db 1 MKRQNVETLALIVCTFTYLLVGAVFDALESEPEMERQRLQLE-LRARNYLSGGY 59
QY 127 QELTLIQHALDADNAGVSPIGNSSNNSHWDLGSAFFAGTVITTTIGYGNIAPISTEGK 186
Db 60 EELERVVLR-LKPHKAGV-----QWRPAGSFYFAITVTTTIGYGHAAAPSTGGK 107
QY 187 IFCLYAFGIPLEFGLLAGIGDQIGTIFGKSIAKVEKFKKQVSTQKIRVISTILFIL 246
Db 108 VFCMFYALLGIPLTVMFQSLGERINTFVRYLLHRAK---RGLGMRHAEVSMANVLIGF 164
QY 247 AGCIVFTIPAVIFKYEKGWTALESIVFVVVTLTTVGFGDFVA-GGNAGINRYEMKPLV 305
Db 165 VSCISTLCIGAAAFSYERWTFFQAYYCFITLTITIGFDYVALQKDQALQTOPQYVAFS 224
QY 306 WFVILVGLAYFAVLSMIGDWRVLSKTKKEEVEGEIKAHAAEWKANVT 353
Db 225 FVILTGLTVIGAFNLV---VLRFTMNAEDEKRD-----AEHRAALT 265

RESULT 12
CIW9_CAVPO STANDARD; PRT; 365 AA.
AC O3JL58;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Potassium channel subfamily K member 9 (Acid-sensitive potassium
channel protein TASK-3) (TWIK-related acid-sensitive K+ channel 3).
GN KCNK9 OR TASK3.
OS Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
OX NCBI_TaxID=10141;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=20287530; PubMed=10747866;
RA Rajan S., Wischmeyer E., Liu G.X., Preisig-Mueller R., Daut J.,
RA Karschin A., Derst C.;
RT "TASK-3, a novel tandem pore domain acid-sensitive K+ channel. An
extracellular histidine as pH sensor.";
RL J. Biol. Chem. 275:16650-16657(2000).
CC -1- FUNCTION: PH-DEPENDENT, VOLTAGE-INSENSITIVE, BACKGROUND POTASSIUM
CHANNEL PROTEIN.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
CC -1- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM
CHANNELS.
CC -----
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or send an email to license@isb-sib.ch).
CC -----
DR EMBL; AF212827; AAF63706.1; -
DR InterPro; IPR003280; 2poreK_channel.
```



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DR InterPro: IPR000636; Cation_chan_non_lig.
DR InterPro: IPR001622; Channel_pore_k.
DR InterPro: IPR003092; TASK_channel.
DR Pfam: PF00520; Ion_trans: 1.
DR PRINTS: PR01333; 2PORECHANNEL.
DR PRINTS: PR01095; TASKCHANNEL.
DR Ionic channel; Transmembrane; Ion transport; Potassium transport;
KW Glycoprotein.
FT DOMAIN 1 8 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 9 29 POTENTIAL.
FT DOMAIN 78 101 PORE-FORMING 1 (POTENTIAL).
FT TRANSMEM 108 128 POTENTIAL.
FT DOMAIN 129 158 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 159 179 POTENTIAL.
FT DOMAIN 184 207 PORE-FORMING 2 (POTENTIAL).
FT TRANSMEM 219 239 POTENTIAL.
FT DOMAIN 240 365 CYTOPLASMIC (POTENTIAL).
FT CARBOHYD 53 53 N-LINKED (GLCNAC...)(POTENTIAL).
SQ SEQUENCE 365 AA; 40769 MW; 261DC973FF53AF91 CRC64;

Query Match 12.5%; Score 350.5; DB 1; Length 365;
Best Local Similarity 26.9%; Pred. No. 4.6e-15;
Matches 112; Conservative 72; Mismatches 153; Indels 79; Gaps 17;

QY 72 MKWKTIV--VAIFVVVVVYLVGTGGLVFRALQEPFESSQNTIALEKAEFLRDHVCVSP-- 127
Db 1 MKQNVRTLSLIACFTYLLVGAADFALDESDHREBEKLAKEIR-IRGKYNISTEDY 59

QY 128 -ELETLIHALDADNAGSPIGNSSNNSHNDLGSARFFACTVITIGYGNIAPISTEGGK 186
Db 60 RLELVILQSS-EPRAGV-----QMKFAGSFYFAITVITIGYHGAAPGTDAKG 107

QY 187 ICILYAIFGIPLFGLLAGIDQLGTIFGKSIAARVKV--FRKKQVSQTKIRVISTILF 244
Db 108 ACMEYAVLGIPLTVMFQSLGERMNTFVYLLKRIKCCGMNTEVSMENWTVG----- 163

QY 245 ILAGICIVFTTAVTFKPIEGWTALESIFVYVVTLLTTFVGFDFVAGNAG-INYREWKYP 303
Db 164 -PFSCWGTLCIGAAAFSCQSEWSFFHAYVYCFITUTTTGFGDYVALQSKGALQRPFYVA 222

QY 304 LWFVILVGLAYFAVLNIGDWLRLVLSKTKKEVGE-----IKAHAAEKNAVTAERF 357
Db 223 FSMFVILVGLTVIGAFNLV--VLRFLTMNDEERGEAGEAALPGNPSVVVTHISEBAR 280

QY 358 ETRRLSVEIHD--KLQRAATIRSMERRLG---LDQRAHS-----LDMLSPE--KRSVFA 406
Db 281 QVRYRGEGGDLQSVSCACYS-QPNFGATLAPQLPHLSISCRIEISPTLKSFL- 338

QY 407 ALDTGRFKASSQESINRNPNRLKGPQLNKHGGOGASEDNIINKFGSTSLTRKK 462
Db 339 -----PSPISVSPG-----LHSGFDNHRMLRLR 362

RESULT 13
CIW3_HUMAN STANDARD; PRT; 394 AA.
ID CIW3_HUMAN
AC O14649;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 01-MAR-2002 (Rel. 41, Last annotation update)
DE Potassium channel subfamily K member 3 (Acid-sensitive potassium
DE channel protein TASK) (TWIK-related acid-sensitive K+ channel).
GN CNK3 OR TASK.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Kidney;
RX MEDLINE=97455932; PubMed=9312005;
RA Duprat F., Lesage F., Fink M., Reyes R., Heurteaux C., Lazdunski M.;

"TASK, a human background K+ channel to sense external pH variations
near physiological pH.";
EMBO J. 16:5464-5471(1997).
[2]
RP SEQUENCE FROM N.A.
RC TISSUE=Heart;
RA Lopes C.M.B., Gallagher P.G., Buck M.E., Butler M.H.,
RA Goldstein S.A.N.;
RT "Proton block and voltage-gating are potassium-dependent in the
cardiac leak channel Kcnk3.";
Submitted (MAY-1998) to the EMBL/GenBank/DBJ databases.
[3]
RP ACTIVATION.
RX MEDLINE=99254548; PubMed=10321245;
RA Patel A.J., Honore E., Lesage F., Fink M., Romey G., Lazdunski M.;
RT "Inhalational anesthetics activate two-pore-domain background K+
channels.";
RL Nat. Neurosci. 2:422-426(1999).
CC -!- FUNCTION: PH-DEPENDENT, VOLTAGE-INSENSITIVE, BACKGROUND POTASSIUM
CHANNEL PROTEIN. RECTIFICATION DIRECTION RESULTS FROM POTASSIUM
ION CONCENTRATION ON EITHER SIDE OF THE MEMBRANE. ACTS AS AN
OUTWARD RECTIFIER WHEN EXTERNAL POTASSIUM CONCENTRATION IS LOW.
WHEN EXTERNAL POTASSIUM CONCENTRATION IS HIGH, CURRENT IS INWARD.
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (potential).
CC -!- TISSUE SPECIFICITY: WIDESPREAD EXPRESSION IN ADULT. STRONGEST
EXPRESSIN IN PANCREAS AND PLACENTA. LOWER EXPRESSION IN BRAIN,
LUNG, PROSTATE, HEART, KIDNEY, UTERUS, SMALL INTESTINE AND COLON.
CC -!- MISCELLANEOUS: INHIBITED BY EXTERNAL ACIDIFICATION. ACTIVATED BY
HALOTHANE AND ISOFLURANE.
CC -!- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM
CHANNELS.
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or send an email to license@isb-sib.ch).
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EMBL: AF006823; AAC51777.1; -
EMBL: AF065163; AAG29340.1; -
MIM: 603220; -
InterPro: IPR003280; 2poreK_channel.
InterPro: IPR000636; Cation_chan_non_lig.
InterPro: IPR001622; Channel_pore_k.
InterPro: IPR003092; TASK_channel.
Pfam: PF00520; Ion_trans; 1.
PRINTS: PR01333; 2PORECHANNEL.
PRINTS: PR01095; TASKCHANNEL.
KW Ionic channel; Transmembrane; Ion transport; Potassium transport;
KW Glycoprotein.
FT DOMAIN 1 8 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 9 29 POTENTIAL.
FT DOMAIN 78 101 PORE-FORMING 1 (POTENTIAL).
FT TRANSMEM 108 128 POTENTIAL.
FT DOMAIN 129 158 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 159 179 POTENTIAL.
FT DOMAIN 184 207 PORE-FORMING 2 (POTENTIAL).
FT TRANSMEM 223 243 POTENTIAL.
FT DOMAIN 244 394 CYTOPLASMIC (POTENTIAL).
FT CARBOHYD 53 53 N-LINKED (GLCNAC...)(POTENTIAL).
SQ SEQUENCE 394 AA; 43518 MW; 9FF4C8266F615FB7 CRC64;

Query Match 12.5%; Score 349.5; DB 1; Length 394;
Best Local Similarity 32.8%; Pred. No. 5.8e-15;
Matches 95; Conservative 53; Mismatches 109; Indels 33; Gaps 10;

QY 72 MKWKTIV--VAIFVVVVVYLVGTGGLVFRALQEPFESSQNTIALEKAEFLRDHVCVSP-- 126
Db 1 MKQNVRTLSLIACFTYLLVGAADFALDESDHREBEKLAKEIR-IRGKYNISTEDY 59
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QY 127 QLETLIQHALDADNAGVSPIGNSSNNSHWDIGSAFFAGTIVTTIGYCNIAPISTEGGK 186
Db 60 EELERVVL-RKPHKAGV-----QWRPAGSFYFAITVITIGYGHAPSDGDK 107
QY 187 IFCILVAIFGPIELGAGIDGOLGTIFGKSTARVEK--VFRKKQVSTKIRVISTILF 244
Db 108 VFCMFYALLGIPLTIVMFOSLGERINTLVRYLLHRAKKGIMRADVSMAN-----VLI 162
QY 245 ILAGCIVFTVTPAVIFKYIEGTWTALESIFVTVVTLTGVGDPVA--GGNAGINRYREYKP 303
Db 163 GFPSCLSTICIGAAFSHEHTFFQYCYFILLTIGFGDVVALQKQALQTOPOYYA 222
QY 304 LVNFWILVGLAYFAAIVLSMIGDWRVLSKTKKEEVEIKAAHAEKANKVT 353
Db 223 FSPVYILTGLTVIGAFNLV--VLRMTWNAEDEKRD-----AEHRALLT 265

RESULT 14
CIW6_HUMAN STANDARD; PRT; 374 AA.
AC Q9NPC2:
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DE Potassium channel subfamily K member 9 (Acid-sensitive potassium
channel protein TASK-3) (TWIK-related acid-sensitive K+ channel 3).
GN KCNK9 OR TASK3.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20287530; PubMed=10747866;
RA Rajan S., Wischmeyer E., Liu G.X., Preisig-Mueller R., Daut J.,
RA Karschin A., Derst C.;
RT "TASK-3, a novel tandem pore domain acid-sensitive K+ channel. An
RT extracellular histidine as pH sensor.";
RL J. Biol. Chem. 275:16650-16657 (2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Cerebellum;
RX MEDLINE=20499203; PubMed=11042359;
RA Chapman C.G., Meadows H.J., Godden R.J., Campbell D.A., Duckworth M.,
RA Kelsell R.E., Murdoch P.R., Randall A.D., Rennie G.I., Gloger I.S.;
RT "Cloning, localisation and functional expression of a novel human,
RT cerebellum specific, two pore domain potassium channel.";
RL Brain Res. Mol. Brain Res. 82:74-83 (2000).
RN [3]
RP SEQUENCE FROM N.A.
RA Girard C., Lesage F., Tinel N., Lazdunski M.;
RT "Human Task-3, a novel 2p domain potassium channel related to Task.";
RL Submitted (JUN-2000) to the EMBL/Genbank/DBJ databases.
RN [4]
RP SEQUENCE FROM N.A.
RA Vega-Saenz de Miera E.C., Lau D.H.P., Zhadina M., Pountney D.,
RA Coetzee W., Rudy B.;
RL Submitted (APR-2000) to the EMBL/Genbank/DBJ databases.
CC -1- FUNCTION: PH-DEPENDENT, VOLTAGE-INSENSITIVE, BACKGROUND POTASSIUM
CC CHANNEL PROTEIN.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
CC -1- TISSUE SPECIFICITY: MAINLY FOUND IN THE CEREBELLUM.
CC -1- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM
CC CHANNELS.
CC -----
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DR EMBL; AF212829; AAF63708.1; -
DR EMBL; AF248241; AAG31730.1; -
DR EMBL; AF279809; AAF85982.1; -
DR EMBL; AF257080; AAG33126.1; -
DR MIM; 605874; -
DR InterPro; IPR003280; 2poreK_channel.
DR InterPro; IPR000636; Cation_chan_non_lig.
DR InterPro; IPR001622; Channel_pore_K.
DR InterPro; IPR003092; TASK_channel.
DR Pfam; PF00520; ion_trans; 1.
DR PRINTS; PRO1333; 2POREKCHANNEL.
DR PRINTS; PRO1095; TASKCHANNEL.
KW Ionic channel; Transmembrane; Ion transport; Potassium transport;
KW Glycoprotein.
FT DOMAIN 1 8 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 9 29 POTENTIAL.
FT DOMAIN 78 101 PORE-FORMING 1 (POTENTIAL).
FT TRANSMEM 108 128 POTENTIAL.
FT DOMAIN 129 158 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 159 179 POTENTIAL.
FT DOMAIN 184 207 PORE-FORMING 2 (POTENTIAL).
FT TRANSMEM 219 239 POTENTIAL.
FT DOMAIN 240 374 CYTOPLASMIC (POTENTIAL).
FT CARBOHYD 53 N-LINKED (GLCNAC... ) (POTENTIAL).
SQ SEQUENCE 374 AA; 42263 MW; 8A19EABE5A4D7F38 CRC64;

Query Match 11.9%; Score 334; DB 1; Length 374;
Best Local Similarity 28.7%; Pred. No. 5.1e-14;
Matches 91; Conservative 61; Mismatches 121; Indels 44; Gaps 10;

QY 72 MKWKTV--VAIFVWVVVLTGVLFRALQEPPESSOKNTIALEKAEFLR----- 119
Db 1 MKRQNVRTLSLVCTFTYLLVGAADFDALESDHEMEEKL---KAEIRIKKYNISSE 57
QY 120 DHVCVSPQELTQLIHALDADNAGVSPIGNSSNNSHWDIGSAFFAGTIVTTIGYCNIA 179
Db 58 DY-----ROLELVLOS-EPRAGV-----QWKPAFGSFYFAITVITIGYCHAA 100
QY 180 PSTEGGKIFCILVAIFGPIELGAGIDGOLGTIFGKSTARVEKVRKKQVSTKIRVI 239
Db 101 PGTDAGAKFCMFYAVLIGIPLTLVNFOSLGERINTLVRYLLHRAKKGIMRADVSMANV 160
QY 240 STILFLTAGCIVFTVTPAVIFKYIEGTWTALESIFVTVVTLTGVGDPVAAGNAG-INYR 298
Db 161 TVGFF--SCMPLCIGAAAFSCSEWSPFHAYCYFITLTIGFGDYVALQTKGALQKK 217
QY 299 EWTKPLVFWILVGLAYFAAIVLSMIGDWRVLSKTKKEEVEIKAAHAEKANKV 352
Db 218 PLYVAFSPMYILVGLTVIGAFNLV--VLRFLTMNSEDERRAEERASLGNRNSMVIHI 275
QY 353 TAEFRETRRLRLSVEIHD 369
Db 276 PEEPRSPRPYKADVPD 292

RESULT 15
CIW6_HUMAN STANDARD; PRT; 313 AA.
AC Q9Y257; Q9HB47;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 01-MAR-2002 (Rel. 41, Last annotation update)
DE Potassium channel subfamily K member 6 (Inward rectifying potassium
channel protein TWIK-2) (TWIK-originated similarity sequence).
GN KCNK6 OR TWIK2 OR TOSS.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A. (ISOFORM 1).
RC TISSUE-Testis;
```

RX MEDLINE=9285568; PubMed=10359073;  
RA Pountney D.J., Gulkarov I., Vega-Saenz de Miera E., Holmes D.,  
RA Saganich M., Rudy B., Artman M., Coetzee W.A.;  
RT "Identification and cloning of TWIK-originated similarity sequence  
RT (TOSS): a novel human 2-pore K<sup>+</sup> channel principal subunit.";  
RL FEBS Lett. 450:191-196(1999).  
RN [2]  
RP SEQUENCE FROM N.A. (ISOFORM 1), AND MUTAGENESIS OF CYS-53.  
RC TISSUE=Brain;  
RX MEDLINE=99175162; PubMed=10075682;  
RA Chavez R.A., Gray A.T., Zhao B.B., Kindler C.H., Mazurek M.J.,  
RA Mehta Y., Forsayeth J.R., Yost C.S.;  
RT "TWIK-2, a new weak inward rectifying member of the tandem pore domain  
RT potassium channel family.";  
RL J. Biol. Chem. 274:7887-7892(1999).  
RN [3]  
RP ERRATUM.  
RA Chavez R.A., Gray A.T., Zhao B.B., Kindler C.H., Mazurek M.J.,  
RA Mehta Y., Forsayeth J.R., Yost C.S.;  
RL J. Biol. Chem. 274:24440-24440(1999).  
RN [4]  
RP SEQUENCE FROM N.A. (ISOFORMS 1 AND 2), AND CHARACTERIZATION.  
RX MEDLINE=20435832; PubMed=10887187;  
RA Patel A.J., Maingret F., Magnone V., Fosset M., Lazdunski M.,  
RA Honore E.;  
RT "TWIK-2, an inactivating 2p domain K<sup>+</sup> channel.";  
RL J. Biol. Chem. 275:28722-28730(2000).  
CC -1- FUNCTION: Exhibits outward rectification in a physiological K(+) gradient and mild inward rectification in symmetrical K(+) conditions.  
CC -1- SUBUNIT: HOMODIMER (POTENTIAL).  
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).  
CC -1- ALTERNATIVE PRODUCTS: 2 isoforms; 1 (shown here) and 2; are produced by alternative splicing.  
CC -1- TISSUE SPECIFICITY: WIDESPREAD EXPRESSION. DETECTED IN ALL TISSUES TESTED EXCEPT FOR SKELETAL MUSCLE. STRONGEST EXPRESSION IN PLACENTA, PANCREAS, HEART, COLON AND SPLEEN, LOWER LEVELS DETECTED IN PERIPHERAL BLOOD LEUCOCYTES, LUNG, LIVER, KIDNEY AND THYMUS.  
CC -1- LOWEST EXPRESSION DETECTED IN BRAIN.  
CC -1- MISCELLANEOUS: INHIBITED BY INTERNAL ACIDIFICATION AND, TO A SMALL DEGREE, BY ZINC. NOT INHIBITED BY QUININE, QUINIDONE OR BARIUM.  
CC -1- SIMILARITY: BELONGS TO THE TWO PORE DOMAIN FAMILY OF POTASSIUM CHANNELS.  
-----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
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DR EMBL; AF134149; AAD22980.1; -;  
DR EMBL; AF117708; AAD24000.1; -;  
DR EMBL; AF281302; AAG10506.1; -;  
DR EMBL; AF281303; AAG10507.1; -;  
DR MIM; 603939; -;  
DR InterPro; IPR000636; Cation\_chan\_non\_lig.  
DR InterPro; IPR001622; Channel\_pore\_k.  
DR InterPro; IPR001779; TWIK1\_channel.  
DR Pfam; PF00520; Ion\_trans; 1.  
DR PRINTS; PR01096; TWIKCHANNEL.  
DR Ionic channel; Transmembrane; Ion transport; Potassium transport;  
KW Glycoprotein; Alternative splicing.  
FT DOMAIN 1 4 CYTOPLASMIC (POTENTIAL).  
FT TRANSMEM 5 25 POTENTIAL.  
FT DOMAIN 90 115 PORE-FORMING 1 (POTENTIAL).  
FT TRANSMEM 121 141 POTENTIAL.  
FT DOMAIN 142 172 CYTOPLASMIC (POTENTIAL).  
FT TRANSMEM 173 193 POTENTIAL.  
FT DOMAIN 199 223 PORE-FORMING 2 (POTENTIAL).  
FT TRANSMEM 236 256 POTENTIAL.  
FT DOMAIN 257 313 CYTOPLASMIC (POTENTIAL).

	FT	CARBOHYD	79	85	79	85	N-LINKED (GLCNAC. . .)	(POTENTIAL).
FT	CARBOHYD	79	85	79	85	79	85	N-LINKED (GLCNAC. . .)
FT	CARBOHYD	79	85	79	85	79	85	N-LINKED (GLCNAC. . .)
FT	VARSPLIC	1	134	1	134	1	134	MISSING (IN ISOFORM 2).
FT	MUTAGEN	53	53	53	53	53	53	C->A: NO CHANNEL ACTIVITY.
SQ	SEQUENCE	313	AA;	33747	MM;	1379382	DFB0575DE	CRC64;

Query Match 11.9%; Score 333.5; DB 1; Length 313;  
Best Local Similarity 33.2%; Pred. No. 4.4e-14;  
Matches 80; Conservative 42; Mismatches 108; Indels 11; Gaps 4;

QY	87	YLVGTGLVFRAL	EQPFSSQKNTALEKAEFLRDHVCVSPQ	ETLIQH	ALDADNAGVSP	146			
Db	17	YLVGALLVARLE	GPHEARLARAELETURAQLQRSPCAAPALDA	FVERVLA	AGRLGRV	76			
QY	147	IGNSSNNSS	-----HWDLGSAFF	FGAGTVIT	IGYGNIA	PSPTGGKIFCTLYAIFGIP	202		
Db	77	LANASGSANAS	DPANDPASFAL	FFASTLIT	TVGYGYT	PLTDAGKAFSTAFALLGVPT	136		
QY	203	LLAGIGDQLG	TFCKSIARVEK	VFRKKQV	SQTKIR	VISTILFILAGCIVFV--	TIPAVIF	260	
Db	137	LLTASAQR	LSLL-----LTHVPL	SWLSMR	WGDPRRA	ACWHLVALLGVVTV	VCFLVPAVIF	192	
QY	261	KYI-EGW	TALESYFVVV	VTLLTV	GVGDFV	AGNAGIN	YREWKPLVWF	WILVGLAYFAV	319
Db	193	AHLEEA	WSFLDAFY	FCFISL	STIGLDY	VGPAGP	QPYRALYKVL	VTLYFLGLVAMV	252
QY	320	L	320						
Db	253	L	253						

Search completed: September 21, 2002, 10:00:09

Job time: 655 sec

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Result No.	Score	Query		Length	DB	ID	Description
		Match	%				
1	1248	44.7	426	11	Q920B6		Q920b6 rattus norv
2	1243.5	44.5	370	11	Q924I4		Q924i4 rattus norv
3	1242.5	44.5	411	4	Q9NR2		Q9nr2 homo sapien
4	1081.5	38.7	241	11	Q9CX88		Q9cx88 mus musculu
5	860.5	30.8	248	11	Q9DA02		Q9da02 mus musculu
6	822.5	29.4	419	4	Q9GT94		Q9gt94 homo sapien
7	512	18.3	294	4	Q9H591		Q9h591 homo sapien
8	512	18.3	309	4	Q9GT55		Q9gt55 homo sapien
9	478.5	17.1	502	11	Q9JK62		Q9jk62 mus musculu
10	400	14.3	336	11	Q92T2		Q92t2 rattus norv
11	395.5	14.2	336	11	Q99199		Q99199 mus musculu
12	392	14.0	332	4	Q96T54		Q96t54 homo sapien
13	389.5	13.9	343	4	Q9BXD1		Q9bxdl homo sapien
14	382	13.7	259	6	002821		002821 oryctolagus
15	351.5	12.6	299	11	Q9QX34		Q9qx34 mus musculu
16	349	12.5	396	11	Q923V6		Q923v6 rattus norv

Db 119 QOIVTAINAGIPLGNNSNOVSHWDLGSSFFAGTIVITIGFNGISPRTEGGKIFCIYA 178  
Qy 194 IFGPIPLFGLAGDQGTIGFSIARVERKQVSOQKIRVISTILFACGIVFV 253  
Db 179 LGLPFLFGLAGVDQGTIFGKIAKVEDTFIKWNVSOQKIRIISTIFILFGCVL 238  
Qy 254 TIPAVIFKIEGWTALESIFVWVTLTVGDFGVAGNAGINREWKPLVWFILVGL 313  
Db 239 ALPAVIFKHIEGWSALDAIYFVITLTVGDFGVAGG-SDIEYLDYFKPVVWFILVGL 297  
Qy 314 AYFAVLSMIGDWRVLSKKTKEEVEGETKAHAAEWKANVTAEFRETTRRLSVETDKLQR 373  
Db 298 AYFAVLSMIGDWRVLSKKTKEEVEGEFRAHAAEWTANVTAEFRETTRRLSVETDKFQR 357  
Qy 374 AATIRSMERRRLGLDQRAHSLDMLSPKRSV 404  
Db 358 ATSV-----KRKLSAELAGNHQELTPCRTL 384  
RESULT 2  
ID Q924I4 PRELIMINARY; PRT; 370 AA.  
AC Q924I4;  
DT 01-DEC-2001 (Tremblrel. 19, Created)  
DT 01-DEC-2001 (Tremblrel. 19, Last sequence update)  
DE 01-DEC-2001 (Tremblrel. 19, Last annotation update)  
DE MECHANOSENSITIVE TANDEM PORE POTASSIUM CHANNEL.  
OS Rattus norvegicus (Rat).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
OX NCBI\_TaxID=10116;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=SPRAGUE-DAWLEY;  
RX MEDLINE=2126849; PubMed=11374070;  
RA Kim Y., Bang H., Gnatenco C., Kim D.;  
RT "Synergistic interaction and the role of C-terminus in the activation  
of TRAAK K+ channels by pressure, free fatty acids and alkali.";  
RL Pflugers Arch. 442:64-72(2001).  
DR EMBL: AF302842; AAK60504.1; -  
KW Ionic channel.  
SQ SEQUENCE 370 AA; 40874 MW; 54677E351C564234 CRC64;  
Query Match 44.5%; Score 1243.5; DB 11; Length 370;  
Best Local Similarity 64.0%; Pred. No. 1.5e-82;  
Matches 245; Conservative 54; Mismatches 67; Indels 17; Gaps 5;  
Qy 22 AAAPVCPKSAATNGPPAPAPTPTPRLSISSRATVVA-RMEGTSGGGLQTVKWKTVVAI 80  
Db 2 AAPDLLDPKSA-----AQNSKPRLSFSKPTVLASRVESDST---AINYMKWKTVSTI 50  
Qy 81 FVWVYVLTGGLVFRALAEQPFESSQKNTIALEKAEFLRDHVCVSPQSELETLIQHALLDAD 140  
Db 51 FLVVVYLIIGATVFKALEQPEISQRTTIVIQKQNFIAQHACVNSVTELDLQIIVAI 110  
Qy 141 NAGVSPIGNSNNSHWDGSAFFAGTIVITIGYNIAPSTEGGKIFCIYALFIPGLF 200  
Db 111 NAGIPLGNTSNQISHWDLGSSFFAGTIVITIGFNGISPRTEGGKIFCIYALLGIPLF 170  
Qy 201 GFLAGIDQDQGTIFGKSIARVEKVKQVSOQKIRVISTILFACGIVFVPIAVIF 260  
Db 171 GFLAGVDQDQGTIFGKIAKVEDTFIKWNVSOQKIRIISTIFILFGCVLFAVPAIF 230  
Qy 261 KYIEGWTALESIFVWVTLTVGDFGVAGNAGINREWKPLVWFILVGLAYFAVAVL 320  
Db 231 KHIEGWSALDAIYFVITLTVGDFGVAGG-SDIEYLDYFKPVVWFILVGLAYFAVAVL 289  
Qy 321 SMIGDWRVLSKKTKEEVEGETKAHAAEWKANVTAEFRETTRRLSVETDKLQRAATIRSM 380  
Db 290 SMIGDWRVLSKKTKEEVEGEFRAHAAEWTANVTAEFRETTRRLSVETDKFQRATSV--- 346  
Qy 381 ERRRLGLDQRAHSLDMLSPKRS 403

Db 347 -KRKLSAELAGNHQELTPCMT 368  
RESULT 3  
Q9NRT2  
ID Q9NRT2 PRELIMINARY; PRT; 411 AA.  
AC Q9NRT2;  
DT 01-OCT-2000 (Tremblrel. 15, Created)  
DT 01-OCT-2000 (Tremblrel. 15, Last sequence update)  
DT 01-DEC-2001 (Tremblrel. 19, Last annotation update)  
DE TWO-PORE DOMAIN POTASSIUM CHANNEL TREK-1.  
GN TREK-1.  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=BRAIN;  
RX MEDLINE=20244931; PubMed=10784345;  
RA Meadows H.J., Benham C.D., Cairns W., Gloger I.S., Jennings C.,  
RA Medhurst A.D., Murdoch P., Chapman C.G.;  
RT "Cloning, localisation and functional expression of the human  
orthologue of the TREK-1 potassium channel.";  
RL Pflugers Arch. 439:714-722(2000).  
DR EMBL: AF171068; AAF89743.1; -  
DR InterPro: IPR003280; 2porek\_channel.  
DR InterPro: IPR000636; Cation\_chan\_non\_lig.  
DR InterPro: IPR001622; Channel\_pore\_K.  
DR InterPro: IPR003976; Trek\_channel.  
DR Pfam: PF00520; ion\_trans; 1.  
DR PRINTS: PR01333; 2FOREKCHANNEL.  
DR PRINTS: PR01499; TREKCHANNEL.  
KW Ionic channel.  
SQ SEQUENCE 411 AA; 45494 MW; FDE40CAB21B42A1C CRC64;  
Query Match 44.5%; Score 1242.5; DB 4; Length 411;  
Best Local Similarity 63.5%; Pred. No. 2.1e-82;  
Matches 244; Conservative 57; Mismatches 66; Indels 17; Gaps 5;  
Qy 22 AAAPVCPKSAATNGPPAPAPTPTPRLSISSRATVVA-RMEGTSGGGLQTVKWKTVVAI 80  
Db 2 AAPDLLDPKSA-----AQNSKPRLSFSKPTVLASRVESDST---TINYMWKTVSTI 50  
Qy 81 FVWVYVLTGGLVFRALAEQPFESSQKNTIALEKAEFLRDHVCVSPQSELETLIQHALLDAD 140  
Db 51 FLVVVYLIIGATVFKALEQPEISQRTTIVIQKQNFISQHSVCVNSTELDLQIIVAAI 110  
Qy 141 NAGVSPIGNSNNSHWDGSAFFAGTIVITIGYNIAPSTEGGKIFCIYALFIPGLF 200  
Db 111 NAGIPLGNTSNQISHWDLGSSFFAGTIVITIGFNGISPRTEGGKIFCIYALLGIPLF 170  
Qy 201 GFLAGIDQDQGTIFGKSIARVEKVKQVSOQKIRVISTILFACGIVFVPIAVIF 260  
Db 171 GFLAGVDQDQGTIFGKIAKVEDTFIKWNVSOQKIRIISTIFILFGCVLFAVPAIF 230  
Qy 261 KYIEGWTALESIFVWVTLTVGDFGVAGNAGINREWKPLVWFILVGLAYFAVAVL 320  
Db 231 KHIEGWSALDAIYFVITLTVGDFGVAGG-SDIEYLDYFKPVVWFILVGLAYFAVAVL 289  
Qy 321 SMIGDWRVLSKKTKEEVEGETKAHAAEWKANVTAEFRETTRRLSVETDKLQRAATIRSM 380  
Db 290 SMIGDWRVLSKKTKEEVEGEFRAHAAEWTANVTAEFRETTRRLSVETDKFQRATSI--- 346  
Qy 381 ERRRLGLDQRAHSLDMLSPKRSV 404  
Db 347 -KRKLSAELAGNHQELTPCRTL 369  
RESULT 4  
Q9CX88

18 VAVPAAA-PVCPKPSATNGOPPAPAPTPTPRLSISSRATVVARMEGTSQGGLOTVMKKWT 76

DI	01-DEC-2001 (11EMBUEL: 19, last annotation update)
DE	TWO PORE K+ CHANNEL KT4.1B.
OS	Homo sapiens (Human).
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX	NCBI_TaxID=9606;
RN	[1]
RP	SEQUENCE FROM N. A.
RA	Orzaita A., Vega-Saenz de Miera E.C. ;
RT	"Cloning of Two Transcripts of the Human 2-Pore K+ channel KT4.1 Gene
RT	Chromosomal Localization, Tissue Distribution and Functional
RT	Expression.";








```
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA STRAIN=129/SVJ; TISSUE=KIDNEY;
RC Roux J., Barhanin J.;
RT "Mouse two P domain potassium channel TASK2.";
RL Submitted (APR-2000) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=KIDNEY;
RA Cid L.P., Niemeyer M.I., Sepulveda F.V.;
RT "Functional properties of mouse TASK-2 potassium channel.";
RL Submitted (NOV-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF259395; AAF68668.1; -
DR EMBL; AF319542; AAG35085.1; -
DR MGD; MGI:1336175; Kcnk5.
DR InterPro; IPR003280; 2porek_channel.
DR InterPro; IPR000636; Cation_chan_non_lig.
DR InterPro; IPR001622; Channel_pore_K.
DR Pfam; PF00520; ion_trans; 1.
DR PRINTS; PR01333; 2POREKCHANNEL.
KW Ionic channel.
SQ SEQUENCE 502 AA; 55976 MW; E4C7E7C71B44D95 CRC64;

Query Match 17.1%; Score 478.5; DB 11; Length 502;
Best Local Similarity 27.0%; Pred. No. 1.le-26;
Matches 126; Conservative 76; Mismatches 185; Indels 79; Gaps 13;

Qy 84 VVYLVLTGGLVFRALQEPFESSQKNTIALEKAEFLRDHVCVSPQLETLIOHALD 143
Db 12 IIFYLGAATFEVLEEPHWKANKNYTQKLLKKEPCLSQEGLDKILQVSDRAQQ 71

Qy 144 VSPIGNSSNSHWDLSGAFFAGTIVTTIGYGNIAPISTEGGKIFCILIYAFIPLGFL 203
Db 72 VAITGNQTFN--NWNPNAMIFAATVTTIGYGNVAPKTPAGRLFCVFGYGLGVPL--C 126

Qy 204 LAGIGDQGTIFGKSIARVERKVKQVSOQKIRVISILFILAGCIVFTVPIVFIKYI 263
Db 127 LTWI--SALGKFFGGRAKGLGFLTRGVSLRKAQITCAIFVGVVLVHLVIPPFFVMT 185

Qy 264 EGWTALESIFYVWVTLTVGFGDFVAGNAGINREWKPLVFWFVILVGLYFAFVLSMI 323
Db 186 EEWNYIEGLYYSFTISTIGFGDFVAGVNPSPANYHALYRYFVELWYLGLA----- 236

Qy 324 GDWLRLSKTYKEEVEGEIKAHAAEKANVTAEFRETRRLSVIEHDKLQRAATIRSMRR 383
Db 237 --WLSLF-----VNMKV-----MFVHVHKAIK-----KRRRRR 263

Qy 384 RLGLDQRAHSLDMLSPKRSVFAALDTGFKASSQESINRPNL-----RLK 431
Db 264 KESFESSPHSKALQAMAGSTASKVDNIIFSLSKKEETNDLIKQIGKKAMKTSGGGERV 323

Qy 432 GPEQLNKHGQASDENIINFGKSTSLRKRKNKDLKTLPEDEVQKIYKTFRNYSLDEKK 491
Db 324 GP---GHGLGPGQDRLTPIASLAPLVYS---KNRVP-SLEEVSTLKNKHGVSRL 374

Qy 492 EEETKMCNSNSSTAML-----TDCIQQHALENGMIPTDTKDREP 533
Db 375 GEAGAAQPKDSYQTSVEFINQLDRISBEGE-----PWEALDYHP 414

RESULT 10
ID Q922T2 PRELIMINARY; PRT; 336 AA.
AC Q922T2;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-OCT-2001 (TrEMBLrel. 18, Last annotation update)
DE PUTATIVE POTASSIUM CHANNEL TWIK.
```

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OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RA Gan L., Joiner W.J., Quinn A.M., Wang L.-Y., Hughes T.,
RC Kaczmarek L.K.;
RT "Cloning and localization of rTWIK, a putative potassium channel with
two P domains.";
RL Submitted (SEP-1997) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF022819; AAD09336.1; -
DR InterPro; IPR003280; 2porek_channel.
DR InterPro; IPR000636; Cation_chan_non_lig.
DR InterPro; IPR001622; Channel_pore_K.
DR InterPro; IPR001779; TWIK1_channel.
DR Pfam; PF00520; ion_trans; 1.
DR PRINTS; PR01333; 2POREKCHANNEL.
DR PRINTS; PR01096; TWIK1CHANNEL.
KW Ionic channel.
SQ SEQUENCE 336 AA; 38228 MW; 5E78031947D75DE6 CRC64;

Query Match 14.3%; Score 400; DB 11; Length 336;
Best Local Similarity 30.5%; Pred. No. 3.4e-21;
Matches 100; Conservative 60; Mismatches 108; Indels 60; Gaps 11;

Qy 81 FVVV--VVYLVLTGGLVFRALQEPFESSQKNTIALEKAEFLRDHVCVSPQLETLIOHALD 138
Db 25 FLVLGLLYLVFGAVVFSVLPYEDLLRQELKRLRFLRFLRFLRFLRFLRFLRFLRFLRFLR 84

Qy 139 ADNAGVSPIGNSSNSHWDLSGAFFAGTIVTTIGYGNIAPISTEGGKIFCILIYAFI 198
Db 85 ASNCGVSVLSNASGN--WNWDTLSALFASVTLSTYGTHTVPLSDGGKAFCLIIYSVIGIP 143

Qy 199 LFGFLLAGIGDQGTIFGKSIARVERKVKQV-----SQTKIRVISIL--FILA 247
Db 144 FTLLFLTAV-----VQRTVTVHTRRPVLYFHIRWGFSKQVAVIHAVLLGFVTV 192

Qy 248 GCIVFTVTPAFVKYIE--GWTALESIFYVWVTLTVGFGDFVAGNAGINREWKPLVW 306
Db 193 SCFFP--IPAAVFSVLEDDNFWLFSFYFCFISLTIGLDVYVPGEGYNQKFLRELKIGIT 250

Qy 307 FWILVGLYFAFVLSMIGDWLRVLSK-----KTKEEVEGEIKAHAAEKANVTAEFRETRR 361
Db 251 CYLLGLLIAMLVLETFCF--LHELKFKRMFYVKKDKEDQVHME----- 295

Qy 362 RLSVEIHKL-----QRAATIRSMRR 383
Db 296 -----HDQLSFSITEQAAGLKEQKQ 317

RESULT 11
ID Q99L99 PRELIMINARY; PRT; 336 AA.
AC Q99L99;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE POTASSIUM CHANNEL, SUBFAMILY K, MEMBER 1.
GN KCKN1.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA Strausberg R.;
RL Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC003729; AAH03729.1; -
DR MGD; MGI:109322; Kcnk1.
DR InterPro; IPR003280; 2porek_channel.
DR InterPro; IPR000636; Cation_chan_non_lig.
```

InterPro: IPR001622; Channel\_pore\_K.  
 DR InterPro: IPR001779; TWIK1\_channel.  
 DR Pfam: PF00520; ion\_trans; 1.  
 DR PRINTS: PR01333; 2POREKCHANNEL.  
 DR PRINTS: PR01096; TWIK1CHANNEL.  
 SQ SEQUENCE 336 AA; 38201 MW; 76B7FD5361A6216C CRC64;

Query Match 14.2%; Score 395.5; DB 11; Length 336;  
 Best Local Similarity 33.7%; Pred. No. 7.3e-21;  
 Matches 94; Conservative 50; Mismatches 98; Indels 37; Gaps 9;

QY 81 FVVV--VYLVLTGGLVFRALQEPFESSQKNNTIALEKAEFLRDHVCVSPQLETLIQHALD 138  
 Db 25 FLVLGVLVLFVGAVFSSVELPVEDLLRQELKRLRRPLEEHECLSEPOLQFLGRVLE 84  
 QY 139 ADNAGVSPIGNSSNNSHWDLGSNAFFAGVITITIGYNTAPSTEGGKFCILYALFGIP 198  
 Db 85 ASNYGVSLNASGN--WNWDFTSALFASVPLSTGTGYTVPDLSGDKAFCIYISVIGIP 143  
 QY 199 LFGFLAGIQDLGTGFGKSIARVEKVKOV-----SOTKIRVISTIL--FILA 247  
 Db 144 FTLLFLTAV-----VQRVTHVTRRPVLYPHIRMGFSQVVAIVHAVLLGFTVV 192  
 QY 248 GCIVFVTPAVIFKYIE-GWTALESIFVVVTLTTVFGDFVAGNAGINIREWYKPLVM 306  
 Db 193 SCFFP--IPAASFVLEDDNWFLESFECFISLSTIGLDYVPGEGYNQKRELYKIGIT 250  
 QY 307 FWILVGLAYFAAVLSMGDWLRVLS-----KKYKEE 337  
 Db 251 CYLLGLSLAMLVLETFCE-LHELKFRKMFYVVKDKDE 288

RESULT 12  
 Q96T54 PRELIMINARY; PRT; 332 AA.  
 AC Q96T54;  
 DT 01-DEC-2001 (TrEMBLrel. 19, Created)  
 DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)  
 DE 2P DOMAIN POTASSIUM CHANNEL TASK-2.  
 GN KCKN17.  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 OC NCBI\_TaxID=9606;  
 RN [1]  
 SEQUENCE FROM N.A.  
 RA Girard C., Duprat F., Terrenoire C., Tinel N., Fosset M., Romey G.,  
 RA Lazdunski M., Lesage F.;  
 RT "Genomic and functional characteristics of novel human pancreatic 2P  
 RT domain K<sup>+</sup> channels";  
 RL Biochem. Biophys. Res. Commun. 0:0-0(2001).  
 DR EMBL: AF358910; AAK49533.1; -.  
 KW Ionic channel.  
 SQ SEQUENCE 332 AA; 36894 MW; 1848DBC06E078158 CRC64;

Query Match 14.0%; Score 392; DB 4; Length 332;  
 Best Local Similarity 31.2%; Pred. No. 1.3e-20;  
 Matches 85; Conservative 59; Mismatches 114; Indels 14; Gaps 3;

QY 52 SRATVARMGTSQGGLOTVMKKTVVAFVTVVTVVLTGGLVFRALQEPFESSQKNNTIA 111  
 Db 6 ARAAPEGVRGCAV-----PSTVLLLAYLALGTGVFTLEGRAAQDSRSFQ 56  
 QY 112 LEKAEFLRDHVCVSPQLETLIQHALDADNAGVSPICGNSNNSSHWDLGSAFFAGTAVIT 171  
 Db 57 RDKWELLQNTCLDRPDLSDLRDVQVAYKNGASLLSNTT-SMGRWELVGSFFSVSIT 115  
 QY 172 TIYGNIASTEGGKFCILYALFGIPFLGFLAGIDGQLTGFGKSIARVEKVKOV 231  
 Db 116 TIYGNLSPTMAARLFCIFFALVGLPLNLVL----NRLGHLMOQGVNHASRLGGTGW 171  
 QY 232 SOTKIRVISTILFILAGCIVFVTIPAVIFKYIEGTWTALESIFVVVTLTTVFGDFVAG 291  
 Db 172 DPKARWLAGSGALLSGLLFLPLPLFSHMEGWSYEGFYFAFATLSTVGVGDYVIGM 231  
 QY 292 NAGINIREWYKPLVFWIIVGLAYFAAVL-SMIGDWLR-----VLSKKTKEEVE 340  
 Db 232 NPSQRYPLWYKNVSLWILFGNAWLALISNSSPSWRQGGVYPAATLALRYSPPKAGD 291

RESULT 14  
 O02821 PRELIMINARY; PRT; 259 AA.  
 AC O02821;  
 DT 01-JUL-1997 (TrEMBLrel. 04, Created)  
 DT 01-JUL-1997 (TrEMBLrel. 04, Last sequence update)  
 DE 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)  
 DE RABCKNK1 (FRAGMENT).

OS Oryctolagus cuniculus (Rabbit).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.  
 OX NCBI\_TaxID=9986;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Orlas M., Velazquez H., Tung F., Desir G.V.;  
 RT "Cloning and nephron segment localization of a double pore K channel,  
 RT KCNK1: exclusive distal expression."  
 RL Submitted (MAY-1997) to the EMBL/GenBank/DBJ databases.  
 DR EMBL: AF004695; AAB61602.1; -  
 DR InterPro; IPR003280; 2poreK\_channel.  
 DR InterPro; IPR000636; Cation\_chan\_non\_lig.  
 DR InterPro; IPR001622; Channel\_pore\_K.  
 DR InterPro; IPR001779; TWIK1\_channel.  
 DR Pfam: PF00520; ion\_trans.1.  
 DR PRINTS; PR01333; 2PORECHANNEL.  
 DR PRINTS; PR01096; TWIK1CHANNEL.  
 FT NON\_TER 1  
 FT 259  
 SQ SEQUENCE 259 AA; 29311 MW; 5546A8BD278E79F3 CRC64;

Query Match 13.7%; Score 382; DB 6; Length 259;  
 Best Local Similarity 35.1%; Pred. No. 4.9e-20;  
 Matches 86; Conservative 48; Mismatches 87; Indels 24; Gaps 6;  
 QY 81 FVVV--VYLVGTGGLVFRALQEPFESSOKNTIALEKAEFLRDHVCVSPQLETLIOHALD 138  
 Db 26 FLVGLVLLVFGVAVFSSVPELVDLLRQELKURRFEVEHECELSQQLQFLGRVLE 85  
 QY 139 ADNAGVSPIGNSSNNSSHDGSAFFAGTIVTTIGYGNIAPISTEGGKIFCILIYAFGIP 198  
 Db 86 ANNYGVSVRSNAGN-WNWFASALFFASTVLTSTGYGHTVPLSDVGNKAFCLIIYVIGIP 144  
 QY 199 LFGFLLAGIDQLGTFGKSIARVEKVRKKQVSTKIR-----VISTILFILAGCIV- 251  
 Db 145 FTLLFTAV-----VQRTVHVTRPVLYFHVWFGSKQVVAIVHAVLGLITV 193  
 QY 252 --FVTIPAVIFKYE-GWTALESIVFVVVTLTVGFGDFVAGNAGINRYREWKPLVWFV 308  
 Db 194 SCFFFPAAVFSVLEDDWNFLSFYFCFISLSTIGLDIVPGEGYNQKPRELYKIGITCY 253  
 QY 309 ILVGL 313  
 Db 254 LLLGL 258

RESULT 15  
 ID Q9QX34 PRELIMINARY; PRT; 299 AA.  
 AC Q9QX34;  
 DT 01-MAY-2000 (TREMBlrel. 13, Created)  
 DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)  
 DE 01-OCT-2001 (TREMBlrel. 18, Last annotation update)  
 DE PUTATIVE POTASSIUM CHANNEL DP4 (FRAGMENT).  
 OS Mus musculus (Mouse).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Mus.  
 OX NCBI\_TaxID=10090;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Gan L., Joiner W.J., Quinn A.M., Wang L.-Y., Hughes T.,  
 RA Kaczmarek L.K.;  
 RL Submitted (SEP-1997) to the EMBL/GenBank/DBJ databases.  
 DR EMBL: AF022821; AAD09338.1; -  
 DR InterPro; IPR003280; 2poreK\_channel.  
 DR InterPro; IPR000636; Cation\_chan\_non\_lig.  
 DR InterPro; IPR001622; Channel\_pore\_K.  
 DR InterPro; IPR003092; TASK\_channel.  
 DR Pfam: PF00520; ion\_trans.1.  
 DR PRINTS; PR01333; 2PORECHANNEL.  
 DR PRINTS; PR01095; TASKCHANNEL.

KW Ionic channel.  
 FT NON\_TER 1  
 FT 299  
 SQ SEQUENCE 299 AA; 33325 MW; DCD41D8A212939C4 CRC64;  
 Query Match 12.6%; Score 351.5; DB 11; Length 299;  
 Best Local Similarity 32.1%; Pred. No. 1e-17;  
 Matches 90; Conservative 53; Mismatches 110; Indels 27; Gaps 8;  
 QY 78 VAIFVVVVVYLVGTGGLVFRALQEPFESSOKNTIALEKAEFLRDHVCVSP---QLETLIQ 134  
 Db 7 LALIVCTFTYLLVGAADFDALESEPEMERQRLQLE-LRARNLSEGGYEELERVVL 65  
 QY 135 HALDADNAGVSPIGNSSNNSSHDGSAFFAGTIVTTIGYGNIAPISTEGGKIFCILIYAI 194  
 Db 66 R-LKPHKAGV-----OWRFAGSYFAITVTTIGYGHAAFPSTGGKVFCEFYAL 113  
 QY 195 FGIPFLFGLLAGIDQLGTFGKSIARVEKVRKKQVSTKIRVISTILFILAGCIVFVT 254  
 Db 114 LGIPLTLVMFQSLGERINTFVRYLLHRAK---RGLGMRHAEVSMANNVLIGFVSCISTLC 170  
 QY 255 IPAVIFKYIEGTWTALESIVFVVVTLTVGFGDFVA-GGNAGINRYREWKPLVWFVILVGL 313  
 Db 171 IGAAAFSYVERWTFQAYYICFTITLTIGFDYVALQKQDALQTOPOYVAFSEVYILTGL 230  
 QY 314 AYFAAVLSMIGDLRLVLSKTKKEEVEGEIKAHAAEWKANVT 353  
 Db 231 TWIGAFNLIV--VLRFMTWNADEKRD-----AEHRALIT 263

Search completed: September 21, 2002, 09:59:18  
 Job time: 614 sec

